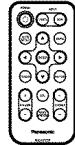
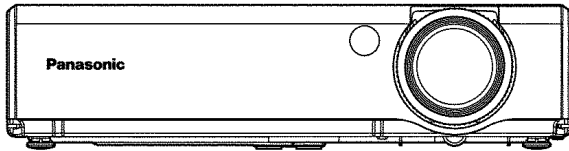


Service Manual

LCD Projector



PT-LB30NTU
PT-LB30NTE
PT-LB30NTEA
PT-LB30U
PT-LB30E
PT-LB30EA

The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

Specifications

Power supply: 100 V - 240 V AC, 50 Hz / 60 Hz

Power consumption:

300 W [During standby (when fan is stopped):
Approx. 3 W]

Amps: 3.5 A - 1.8 A

LCD panel:

Panel size (diagonal): 0.8 type (20.32 mm)
Aspect ratio: 4:3
Micro lens array: Available
Display method: 3 transparent LCD panels (RGB)
Drive method: Active matrix method
Pixels: 786 432 (1 024 × 768) × 3 panels

Lens:

Manual zoom (1 - 1.2) / Manual focus
F 1.7 - 1.8, f 24.0 mm - 28.8 mm

Lamp:

UHM lamp (220 W)

Luminosity:

3 000 lm

Scanning frequency (for RGB signals):

Horizontal scanning frequency: 15 kHz - 91 kHz
Vertical scanning frequency: 50 Hz - 85 Hz
Dot clock frequency: 100 MHz or less

YPbPr signals:

480i, 480p, 576i, 576p, 1 080/60i, 1 080/50i, 720/60p

Color system:

7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60 / SECAM)

Projection size:

838.2 mm - 7 620 mm

Throw distance:

1.1 m - 10.8 m

Optical axis shift:

6:1 (fixed)

Screen aspect ratio:

4:3

Installation:

Front / Rear / Ceiling / Desk (menu selection)

Speakers:

4.0 cm × 3.0 cm oval × 1

Max. useable volume output:

1 W (monaural)

Wireless LAN (PT-LB30NT only):**

IEEE802.11b/g

Connectors:

RGB IN / OUT: Dual-line, D-sub HD 15-pin (female)
(One line is available for input and output,
selectable using an on-screen menu)

During YPbPr input/output:

Y: 1.0 V [p-p] (Including sync), 75 Ω

PbPr: 0.7 V [p-p], 75 Ω

During RGB input/output:

RGB: 0.7 V [p-p], 75 Ω

G.SYNC: 1.0 V [p-p], 75 Ω

HD : TTL, automatic positive/negative polarity
compatible

VD: TTL, automatic positive/negative polarity
compatible

VIDEO IN: Single-line, RCA pin jack

1.0 V [p-p], 75 Ω

S-VIDEO IN: Single-line, Mini DIN 4-pin

Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,

AUDIO IN (for S-VIDEO/VIDEO):

Single-Line, RCA pin jack × 2 (L-R)
0.5 V [rms]

RGB AUDIO IN:

Dual-Line, M3 jack (Stereo MINI)
0.5 V [rms]

AUDIO OUT:

Single-Line, M3 jack (Stereo MINI)
(Monitor output/stereo compatible)
0 V [rms]-1.0 V [rms] (variable)

SERIAL: DIN 8-pin RS-232C compatible

Cabinet:

Molded plastic (PC/ABS)

Dimensions:

Width: 327 mm

Height: 83 mm

Length: 233 mm (without lens cover)

Weight:

PT-LB30NT**: 2.6 kg

PT-LB30**: 2.5 kg

Operating environment:

Temperature: 0°C - 40°C

(when FAN CONTROL is set to "HIGH" 0°C - 35°C)

Humidity: 20 % - 80 % (no condensation)

Certifications:

PT-LB30NTU, LB30U:

UL60950, C-UL, FCC Class B

PT-LB30NTE/EA, LB30E/EA:

EN60950, EN55022, EN61000-3-2,

EN61000-3-3, EN55024

<Remote control unit>

Power supply:

3 V DC (Lithium CR2025 battery × 1)

Operating range:

Approx. 7 m

(when operated directly in front of signal receptor)

Dimensions: Width: 40 mm

Height: 86 mm

Length: 6.5 mm

Weight: 18 g (including battery)

Accessories:

Card Remote control unit (N2QADC000008): 1

Lithium battery for remote control unit (CR2025) : 1

Power cord:

PT-LB30NTU/LB30U:

K2CG3DR00006 1

PT-LB30NTE/LB30E:

K2CM3DR00002 (continental) 1

PT-LB30NTEA/LB30EA:

K2CT3DR00005 (U.K) 1

K2CM3DR00002 1

RGB signal cable [K1HA15DA0002 (1.8 m)]: 1

CD-ROM (TQBH9007) (PT-LB30NT only)** 1

Carrying bag (TPEP014): 1

Options:

Ceiling bracket: ET-PKB30

Wireless remote control unit: ET-RM300

Serial adapter (DIN 8-pin/D-sub 9-pin): ET-ADSER

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Trademark Acknowledgements

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 - Macintosh is a registered trademark of Apple Computer, Inc.
 - S-VGA is a registered trademark of the Video Electronics Standards Association.
- All other trademarks are the property of the various trademark owners.

CAUTION**Lithium Battery**

Risk of explosion if battery is replaced by an incorrect type. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

(See also Operating Instructions.)

Precaution

If using of this projector at high elevations (above 1 400 m), set FAN CONTROL to HIGH. (Refer to "Option settings" in Operating Instructions.)

Failure to observe this may cause malfunctions.

Never use this projector at an elevation of 2 700 m or higher.

Using this projector at high elevations, consult your dealer or Authorized Service Center about preparations.

About lead free solder (PbF)

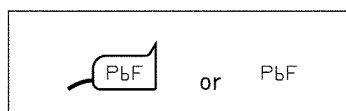
This projector is using the P.C.Board which applies lead free solder. The use of lead free solder is recommended from the standpoint of antipollution for the global environment in service.

Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217°C) than standard solder. Typically, the melting point is 30°C to 40°C higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10°C.
- Be precautionous about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600°C or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder. (When you unavoidably use lead solder, use lead solder after removing lead free solder. Or be sure to heat the lead free solder until it melts completely, before applying lead solder.)
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board

For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.



For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

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1 Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.
- Unplug the power cord from the power outlet before disassembling this projector.
- It is advisable to use an isolation transformer in the AC power line before the service.
- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.
- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.
- After the service, check the leakage current to prevent the customer from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.

Be sure to use a voltmeter having the performance described in Table 1.

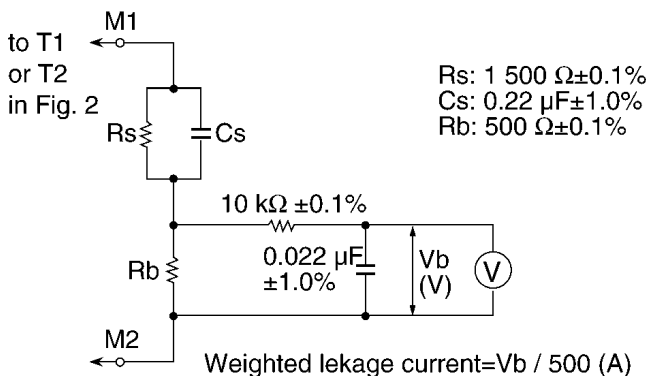


Fig. 1

	Performance
Voltmeter (rms reading)	Accuracy: $\leq 2\%$ Input resistance: $\geq 1 \text{ M}\Omega$ Input capacitance: $\leq 200 \text{ pF}$ Frequency range: 15 Hz to 1 MHz

Table 1

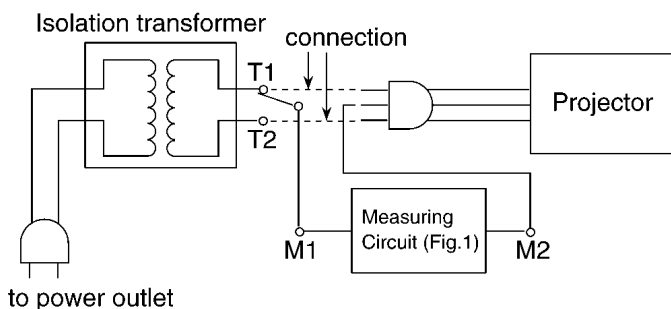


Fig. 2

2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.

3. Connect M1 to T1 according to Fig. 2 and measure the voltage.
4. Change the connection of M1 from T1 to T2 and measure the voltage again.
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.
6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- Because the high pressure lamp involves a risk of failure, never touch the lamp wire lead during the service. (See Fig. 3)

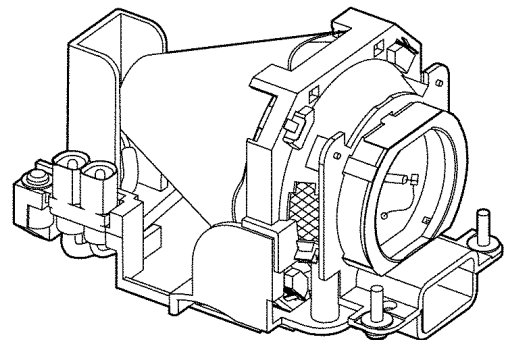


Fig.3

2 Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK and SERVICE MODE for service, etc.

2.1. Procedure to enter EXT OPTION

1. Press "MENU" button on the main unit or remote control unit to display "MENU" screen, then select "OPTION" and press "ENTER" button.
2. Select "OSD" on "OPTION" menu and press "ENTER" button 3 seconds or longer.

MENU → OPTION → OSD

2.2. EXT OPTION Menu and Functions

EXT OPTION

FREEZE MSG	OFF / ON
ANGLE RESET	OFF / ON
FAN FULLMODE	OFF / ON
AUTO SETUP	STANDARD / SPECIAL
SYNC	STANDARD / SPECIAL
SELF CHECK	
SERVICE MODE	
FLICKER ADJ	

• FREEZE MSG

Switching ON/OFF "FREEZE" on-screen display

• ANGLE RESET

Switching ON/OFF "AUTO KEYSTN (Automatic Keystone)" reference level setting

Note:

- Normally, do not select. (Angle reset data will be rewritten.)

• FAN FULLMODE

Setting the cooling fan motor rotation speed

- Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "FAN CONTROL" in OPTION becomes impossible (setting FAN FULLMODE is given priority more than FAN CONTROL).

• AUTOS SETUP

Setting AUTO SETUP mode

- STANDARD: To set the normal mode (the dot clock is adjusted strictly))
- SPECIAL: To set the special mode (the dot clock is adjusted roughly)

Note:

- Do not change the initial setting (STANDARD).

• SYNC

Setting SYNC processing mode

- STANDARD: To set the normal mode
- SPECIAL: To set the special mode (noise reduction mode)

Note:

- Do not change the setting when it is possible to receive normally.

Change the setting only when the image is not displayed normally because of the sync signal noise of connected equipment.

• SELF CHECK

To enter the self-check mode

• SERVICE MODE

To enter the service mode

- FLICKER ADJ

To enter the flicker adjustment mode

2.3. Canceling EXT OPTION

Press "MENU" button on the main unit or remote control unit.

3 Self-Check Mode

This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

3.2. Self Check Display and Contents

Display example

①	SELF CHECK				
②	R1.00	N1.00			PT-LB30NT** only
③	XGA60				
④	H ***.***KHz	G SAVED	OK	⑮	• The result of items "G SAVED" and "U SAVED", "OK" is displayed for OK and "NG" is displayed for NG.
⑤	V ***.***Hz	U SAVED	OK	⑯	
⑥	TEMP OK	FAN	OK	⑰	
⑦	TEMP1 ***	TEMP1 ***		⑱	• The result of items "TEMP", "FAN", "LAMP" and "2000H", the OK display becomes red characters when shutting down because abnormality happened last time.
⑧	TEMP2 ***	TEMP2 ***		⑲	
⑨	TEMP3 ***	TEMP3[0] ***		⑳	
⑩	ANGLE ***	ANGLE[0] ***		㉑	
⑪	DEGREE ***			㉒	
⑫	LAMP OK	2000H	OK	㉓	
⑬	TOTAL *****H	RESET	***	㉔	
⑭	*****H**	*****	*****H**		
⑮	*****H**	*****	*****H**		
⑯	*****H**	*****	*****H**		

* This display is an example and the display contents depend on the input signal mode.

	Display Contents	Remarks	
①	Microcomputer Version Display	Software Version	
②	Resolution Name	Different display according to the input signal	
③	Horizontal Signal Frequency	RGB or YP _B Pr signal reception only	
④	Vertical Signal Frequency		
⑤	Temperature Abnormality Check	Cause of Lamp Malfaction	
⑥	Thermosensor 1 Measurement Value * ¹	Around Air Outlet (A/D conversion value: 0 - 255)	
⑦	Thermosensor 2 Measurement Value * ¹	Around Air Inlet (A/D conversion value: 0 - 255)	
⑧	Thermosensor 3 Measurement Value	Around Tilt Sensor (A/D conversion value: 0 - 1 023)	
⑨	Tilt Sensor Measurement Value	Voltage Value (0.00 - 3.30)	
⑩	Tilt Degree * ²	Degree of tilt of the projector, that is a value by which temperature correction is given to the tilt sensor A/D conversion value. (When automatic keystone, the keystone distortion is corrected with this value.)	
⑪	Lamp - Abnormality Check	Cause of Lamp Malfaction	
⑫	Total Usage Time	Projector Cumulative Usage Time	
⑬	Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time	Current	Cumulative Usage Time (actual time), ON Frequency and Cumulative Usage Time (conversion time for 220 W) of the lamp are shown from the left.
⑭		Second	
⑮		First	
⑯	Gamma Correction Data Check	It is distinguished whether gamma data is stored in the flash ROM.	
⑰	Color Unevenness Correction Data Check	It is distinguished whether color unevenness correction data is stored in the flash ROM.	
⑱	Fan Stop Check	Cause of Lamp Malfaction	
⑲	Thermosensor 1 A/D Conversion Value	Temperature around the air outlet when the last thermal shutdown occurs	
⑳	Thermosensor 2 A/D Conversion Value	Temperature around the air inlet when the last thermal shutdown occurs	
㉑	Thermosensor 3 Reference Value	Thermosensor 3 A/D Conversion Value (0 - 1 023) at angle reset	
㉒	Tilt Sensor Reference Value	Tilt Sensor Voltage Value (0.00 - 3.30) at angle reset	
㉓	Lamp - Judgment for Cumulative Usage more than 2 000 h * ³	Judgment for Replacement Time of Lamp	
㉔	Lamp - Reset Frequency of Cumulative Usage Time	Reset Frequency (0 - 255)	

*¹ When detected abnormal temperature (high temperature around the air inlet and/or outlet ports, large difference between temperature around the air inlet/outlet ports), TEMP indicator turned on. If arriving at the critical temperature, the power supply will be shutdown automatically and the indicator will flash.

*² When "AUTO KEYSTN (Automatic Keystone)" is set to ON, the keystone distortion is corrected automatically with this value during automatic setup.

*³ Warning of the lamp cumulative usage time and shutdown use the conversion time for 220 W.

3.3. Canceling the self-check mode

Press "MENU" button on the main unit or remote control unit.

4 Service Mode

This mode is used to display seven kinds of test patterns [Horizontal lines, Vertical lines, Dots, Crosshatch, White cross, Black cross and White (No pattern)] in the four colors (White, Red, Green and Blue)..

Note:

- On the service mode, displays above patterns by each color without test equipment such as PC or SG. Use the service mode for simplified adjustments by your eyes and so on.

4.1. Procedure to enter the service mode

Select "SERVICE MODE" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

- In the service mode, pressing the up-arrow " ▲ " or down-arrow " ▼ " button allows the test pattern selection and the left-arrow " ◀ " or right-arrow " ▶ " button the color selection (White / Red / Green / Blue).

4.2. Canceling the service mode

Press "MENU" button on the main unit or remote control unit.

5 Flicker Adjustment Mode

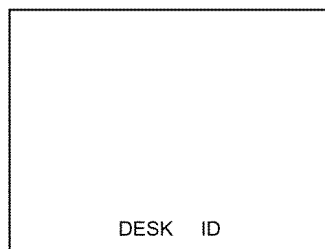
If replacing the optical parts (Analysis / LCD / Lens block) of this projector and/or A-P.C.Board (assembly), enter the flicker adjustment mode and minimize the flicker.

5.1. Procedure to enter the adjustment mode

Select "FLICKER ADJ" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

"DESK setting (blue)" is displayed when entering the adjustment mode.



Adjustment Display when DESK setting

5.2. Adjustment Display and Contents

- Setting value is increased and decreased with the right-arrow " ▶ " and left-arrow " ◀ " buttons.
 - " ◀ ": Decrease, " ▶ ": Increase
 - Adjust the setting value to minimize the flicker on the screen.
 - Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow " ▲ " and down-arrow " ▼ " buttons.
 - " ▲ ": Forward direction, " ▼ ": Reverse direction
 - There are 6 patterns of "DESK setting (blue)", "DESK setting (red)", "DESK setting (green)", "CEILING setting (blue)", "CEILING setting (red)" and "CEILING setting (green)".
 - The setting value is saved into this projector when the pattern is switched.

5.3. Canceling the flicker adjustment mode

Press "MENU" button on the main unit or remote control unit.

Note:

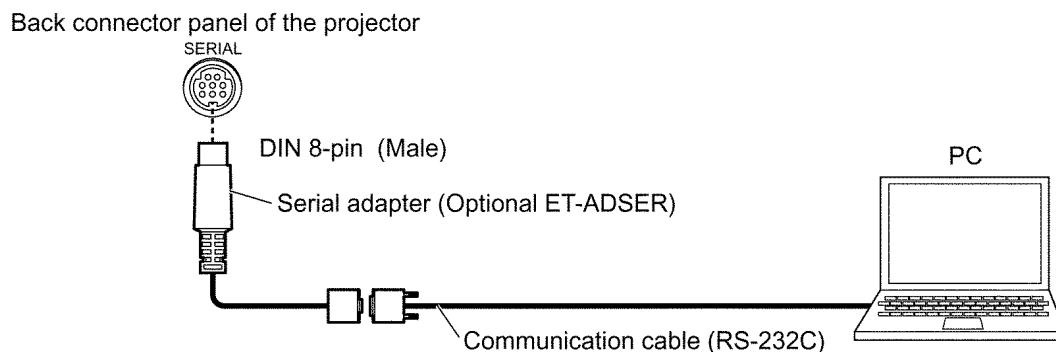
When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.

6 Using the SERIAL Connector

The serial connector which is on the back connector panel of the projector conforms to RS-232C standard. This projector can be controlled by a PC which is connected as shown in "6.1. Connection".

For controlling this projector by a PC, requires communication software on the market, and inputs control commands according to communication settings and basic format below.

6.1. Connection

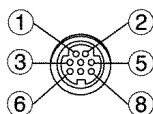


Note:

Use a proper communication cable which is suitable for the PC to connect the optional serial adapter, which is connected with SERIAL connector of this projector, and the PC.

6.2. Pin Layout and Signal Names for SERIAL Connector

DIN 8-pin (female)
seen from outside



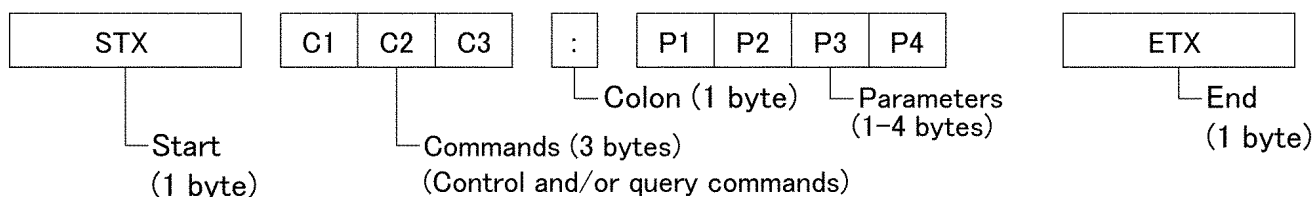
Pin No	Signal Name	Contents
3	RXD	Receive data
4	GND	Ground
5	TXD	Transmit data
1	---	Connected internally
2	---	
6	---	
7	---	NC
8	---	NC

6.3. Communication Settings

Signal Level	Conforms to RS-232C standard	Contents	Description
Sync. method		Asynchronous	Synchronizes every 1 character (8 bits)
Baud rate		9 600 bps	Data transfer speed
Parity		None	Error detection method
Character length		8 bits	Number of bit composing 1 character
Stop bit		1 bit	Uses stop bit when asynchronous method
X parameter		Not used	
S parameter		Not used	

6.4. Basic Format

The data sent from the PC to the projector is transmitted in the format shown below.



Notes:

- If sending multiple commands, check that a call back has been received from the projector for 1 command before sending the next command.
- When a command which does not require parameters is sent, the colon (:) is not required.

6.5. Control / Query Commands

Control Commands

Command Name (Parameter format is shown in <>)	Function / Contents	Call back from Projector (Parameter format is shown in <>)	Minimum Value of Parameter	Maximum Value of Parameter
PON *1	POWER ON	PON	—	—
POF *1	POWER OFF	POF	—	—
AVL :<pl>	VOLUME	AVL :<pl>	0	63
IIS :<input signal>	INPUT SELECT	IIS :<input signal>	—	—
OST	STANDARD	OST	—	—
OFZ :<off_on>	FREEZE	OFZ :<off_on>	0	1
OEN :	ENTER	OEN	—	—
VPM :<picture mode>	PICTURE MODE	VPM :<picture mode>	—	—
<NAT>	NATURAL	<NAT>	—	—
<STD>	STANDARD	<STD>	—	—
<DYN>	DYNAMIC	<DYN>	—	—
<BBD>	BLACK-BD	<BBD>	—	—
AUU	VOLUME UP	AUU	—	—
AUD	VOLUME DOWN	AUD	—	—
OMN	MENU	OMN	—	—
OCU	CURSOR UP	OCU	—	—
OCD	CURSOR DOWN	OCD	—	—
OCL	CURSOR LEFT	OCL	—	—
OCR	CURSOR RIGHT	OCR	—	—
OAS	AUTO SETUP	OAS	—	—
OSH *1	SHUTTER	OSH	—	—
OIX	INDEX WINDOW (Double)	OIX	—	—
DZU	D.ZOOM UP	DZU	—	—
DZD	D.ZOOM DOWN	DZD	—	—
OLP :<lamp power> *1 *2	LAMP POWER	OLP :<lamp power>	0	1

*1 Do not transmit the PON, POF, OSH and/or OLP commands continuously in a short time.
The lamp may be damaged and/or cause malfunctions.

*2 The OLP command is invalid at a no signal.

Query Commands

Query Command	Contents	Call back from Projector (Parameter format is shown in < >)
QPW	POWER CONDITION	<power condition>
QIN	INPUT SIGNAL	<input signal>
QAV	VOLUME LEVEL	<pl>
QVC	COLOR LEVEL	<pl>
QVT	TINT LEVEL	<pl>
QVB	BRIGHT LEVEL	<pl>
QVR	CONTRAST LEVEL	<pl>
QVS	SHARPNESS LEVEL	<pl>
QWR	WHITE BALANCE LEVEL (RED)	<pl>
QWG	WHITE BALANCE LEVEL (GREEN)	<pl>
QWB	WHITE BALANCE LEVEL (BLUE)	<pl>
QHP	H-POSITION LEVEL	<pl>
QVP	V-POSITION LEVEL	<pl>
QCP	COLOR PHASE LEVEL	<pl>
QDC	DOT CLOCK LEVEL	<pl>
QSP	INSTALLATION	<installation>
QLG	LANGUAGE	<language>
QPM	PICTURE MODE	<NAT>=NATURAL <STD>=STANDARD <DYN>=DYNAMIC <BBD>=BLACK-BD
QFZ	FREEZE	<off_on>
QLP	LAMP POWER	<lamp power>
Q\$L	LAMP ON TIME	<acctch>
QSH	SHUTTER	<off_on>
QKS	KEystone	<pl>
QTE	COLOR TEMPERATURE	<color temp.>

Parameters

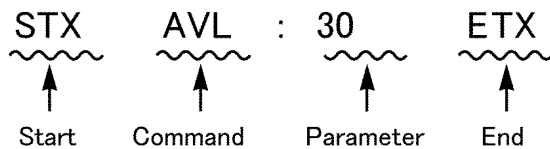
Parameter Format	Parameter Size (Byte)	Parameter Definition
<pl>	3 (provided that approves of 1 byte or 2 bytes when control)	Decimal notation without plus/minus sign (0 to 999), Decimal notation with plus/minus sign (-99 to +99) (Returns 3 bytes call back from the projector. Decimal notation without plus/minus sign (000, 001, 002, ..., 999), Decimal notation with plus/minus sign (-99, -98, ..., -01, +00, +01, ..., +99))
<off__on>	1	0=OFF, 1=ON
<input signal>	3	VID=VIDEO, SVD=S-VIDEO, RG1=RGB1, RG2=RGB2 NWP = NETWORK (PT-LB30NTU/E/EA only)
<installation>	1	0=FRONT/DESK, 1=REAR/DESK, 2=FRONT/CEILING, 3=REAR/CEILING
<language>	3	ENG=English, DEU=German, FRA=French, ESP=Spanish, ITA=Italian, JPN=Japanese, CHI=Chinese, KOR=Korean, RUS=Russian, POR=Portuguese, SVE=Swedish, NOR=Norwegian, DAN=Danish, POL=Polish, CES=Czech, MAG=Hungarian, THA=Thai
<power condition>	3	000=Power OFF, 001=Power ON
<acctch>	4	Decimal notation without plus/minus sign: 0000 hour to 9999 hours
<lamp power>	1	0=LOW, 1=HIGH
<color temp.>	1	0=LOW, 1=STD, 2=HIGH

* If an incorrect command is sent from the PC, the "ER401" command will be sent from the projector to the PC.

[Example]

When controls the audio volume to +30 by a PC

(Sends commands as the following:)



· When a command which does not require parameters is sent, the colon (:) is not required.

6.6. Communication Cable Specifications

Serial adapter				at the PC (DTE)	
---	---	1	NC	NC	1
5	2	2			2
3	3	3			3
---	---	4	NC	NC	4
4	5	5			5
6	6	6	DSR	NC	6
1	7	7			7
2	8	8			8
	---	9	NC	NC	9

6.7. Signal Selector Connecting Cable Specifications

When connecting to a signal selector (ex. TW-SWS62J), use a cable with specifications below.

Connecting method: Connects a video signal cable from the signal selector to "VIDEO IN", and an RGB signal cable to "RGB1 IN".

At the signal selector D-sub 9p (male)		At the serial adapter (DCE) D-sub 9p (male)		Serial adapter	
Signal Name	Pin No.	Pin No.	Signal Name	Pin No. (cable side)	Pin No. (projector side)
NC	1	1	NC	---	---
RD Receive data	2	2	SD Transmit data	2	5
SD Transmit data	3	3	RD Receive data	3	3
NC	4	4	NC	---	---
GND Ground	5	5	GND Ground	5	4
NC	6	6	DSR	6	6
RS Transmit request	7	7	CS Transmit permission	7	1
CS Transmit permission	8	8	RS Transmit request	8	2
NC	9	9	NC	---	---

Note:

Set VP control terminal switch of the signal selector to VP TYPE "B".

7 Disassembly Instructions

Warning:

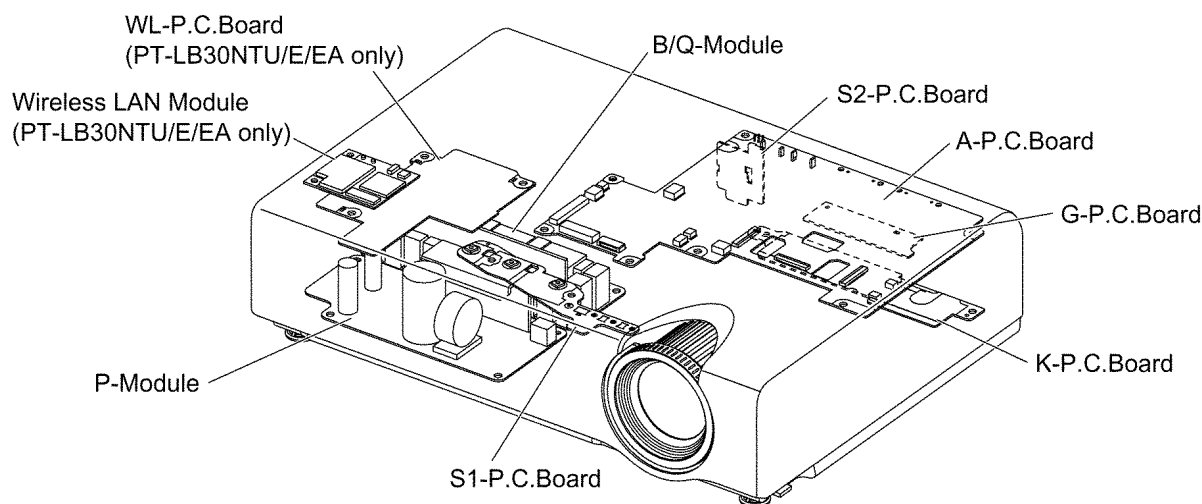
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

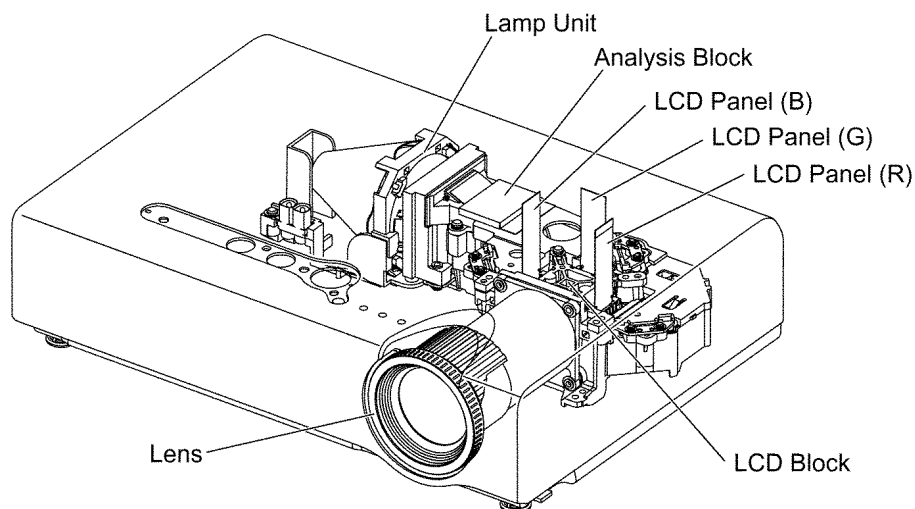
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- After repairing this projector, be sure to put back the wires and connectors to the original condition.

7.1. Printed Circuit Board and Main Parts Location

Electrical Parts

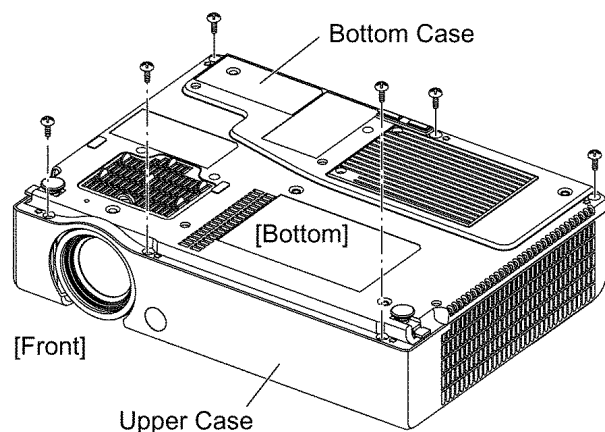


Optical Parts

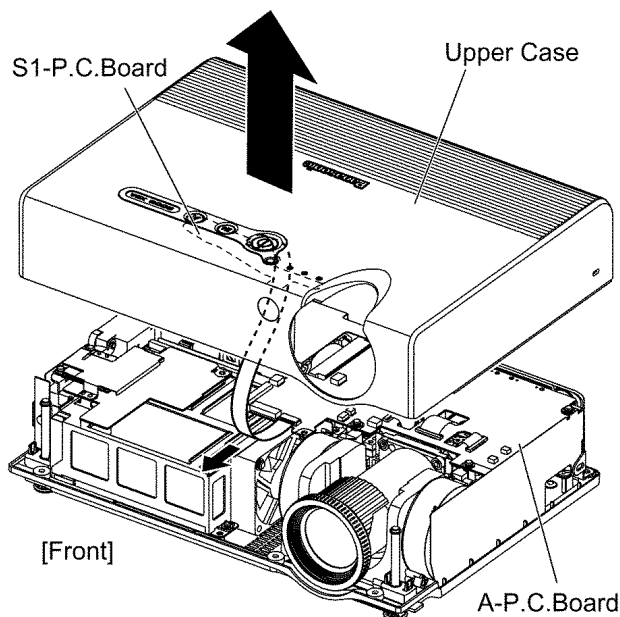


7.2. Removal of Upper Case

1. Turn the projector upside down.
2. Unscrew the 6 screws.

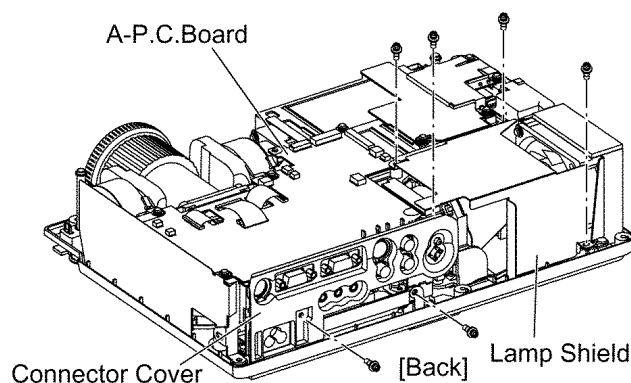


3. Return the projector to the normal position.
4. Lift the upper case upward (approx. 10 cm).
5. Disconnect the cable from S1-P.C.Board (connector A8 on A-P.C.Board) and remove the upper case.

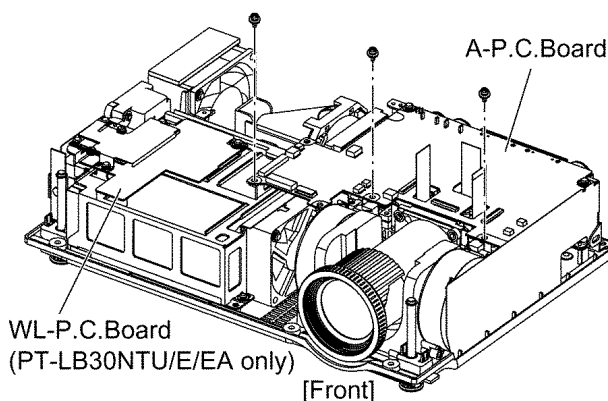


7.3. Removal of A-P.C.Board

1. Remove the upper case according to the section 7.2. "Removal of Upper Case".
2. Unscrew the 1 screw on the backside and remove the connector cover.
3. Unscrew the 1 screw fixing the connector metal fittings on the backside.
4. Unscrew the 4 screws and remove the lamp shield.



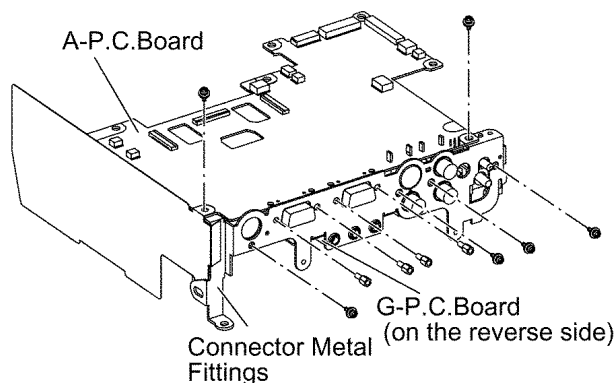
5. Disconnect the connectors from/to the A-P.C.Board block with the S2- and G-P.C.Boards.
6. Unscrew the 3 screws and remove the A-P.C.Board block.



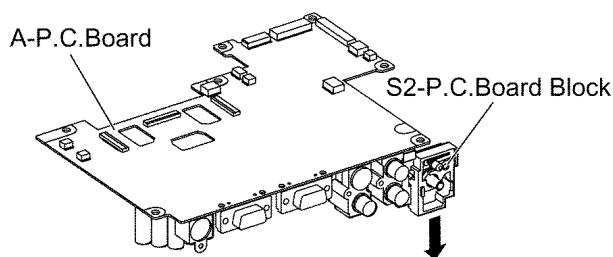
7. Disconnect the flexible cable from connector A20 on A-P.C.Board.
8. Unscrew the 10 screws and remove the connector metal fittings.

Notes:

- Because the S2-P.C.Board block is attached, work carefully when removing the connector metal fittings.
- G-P.C.Board is attached to the connector metal fittings. Be careful with handling.



9. While disconnecting the connector between A- and S2-P.C.Boards, remove the S2-P.C.Board block.



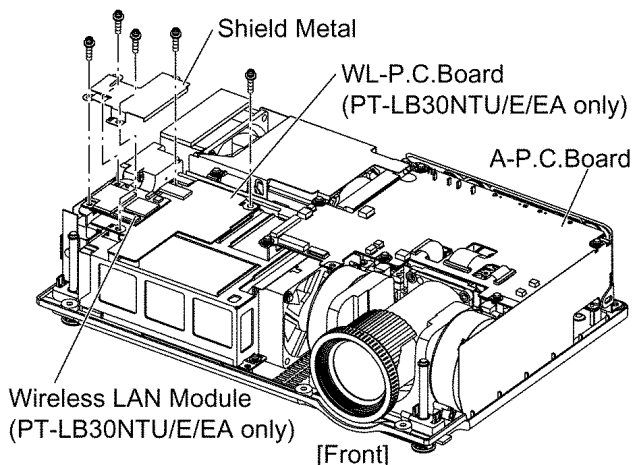
7.4. Removal of WL-P.C.Board (PT-LB30NTU/E/EA only)

1. Remove the upper case according to the section 7.2. "Removal of Upper Case".
2. Unscrew the 4 screws and remove the shield metal and wireless LAN module.

Notes:

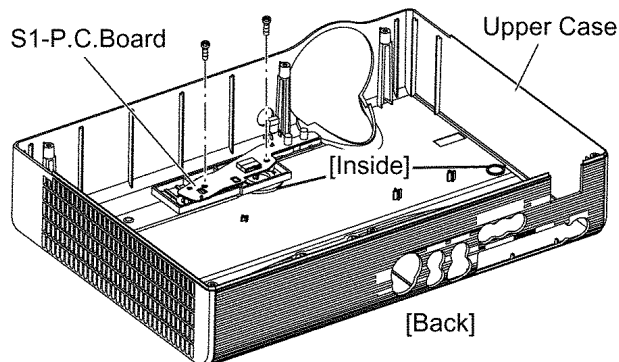
- Because the wireless LAN module is connected with the WL-P.C.Board, work carefully when removing it.
- When installing/detaching the antenna connector, insert or pull out it straight along the center of the connector pin. It causes damage and/or poor contacting of the connector when forcibly installing/detaching it.
- When reassembling, secure the antenna coaxial cable with the radio wave absorption tape that had been used originally, and return it to the original condition.
- Connect the connector from the antenna with the original position (connector on the wireless LAN module) after reassembling.

3. Unscrew the 1 screw and remove the WL-P.C.Board.



7.5. Removal of S1-P.C.Board

1. Remove the upper case according to the section 7.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the S1-P.C.Board.

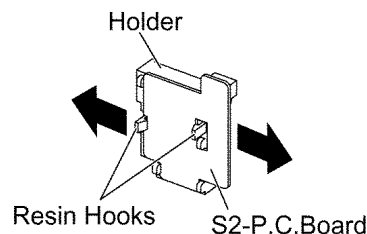


7.6. Removal of S2-P.C.Board

1. Remove the S2-P.C.Board block according to the section 7.3. "Removal of A-P.C.Board".
2. Remove the holder while expanding the resin hooks outside.

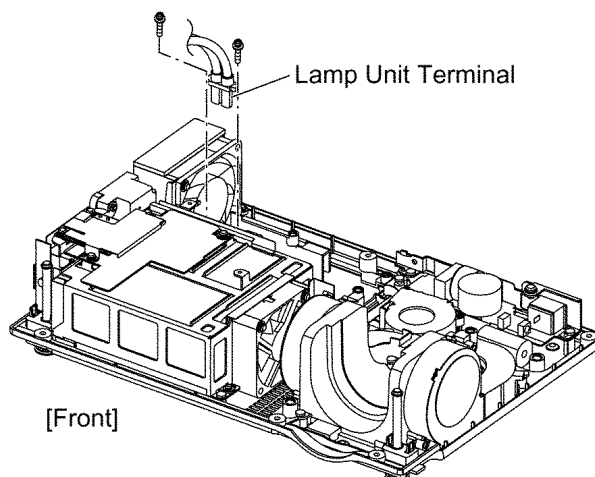
Note:

- Work carefully not to damage the resin hook.

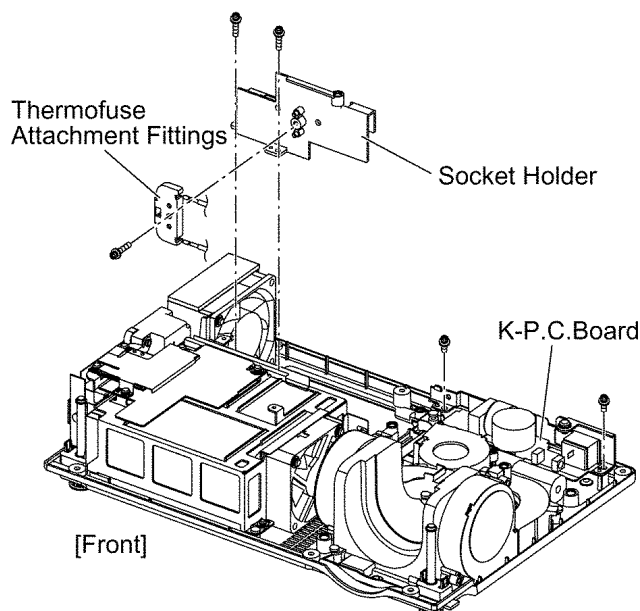


7.7. Removal of K-P.C.Board

1. Remove the analysis block, LCD block and lens according to the steps 1 through 3 in the section 7.12. "Removal of Analysis Block and Lens".
2. Unscrew the 2 screws and remove the lamp unit terminal.

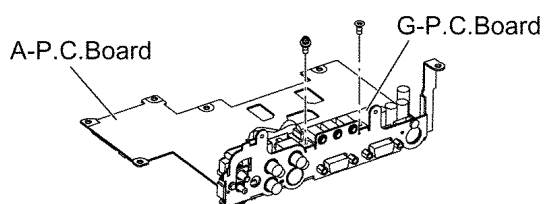


3. Unscrew the 2 screws and remove the socket holder.
4. Unscrew the 1 screw and separate the socket holder and thermofuse attachment fittings.
5. Unscrew the 2 screws and remove the K-P.C.Board.



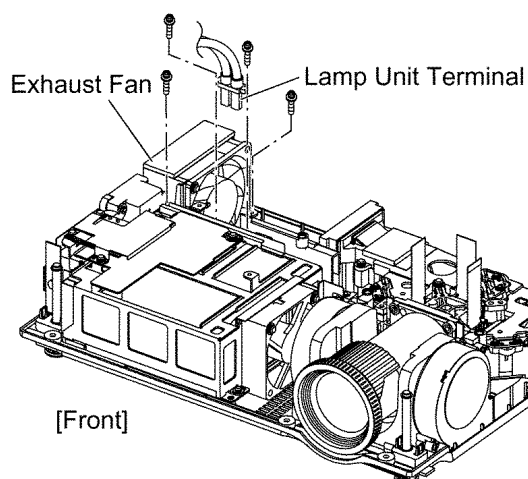
7.8. Removal of G-P.C.Board

1. Remove the A-P.C.Board block according to the steps 1 through 6 in the section 7.3. "Removal of A-P.C.Board".
2. Disconnect the flexible cable between the G-P.C.Board and A-P.C.Board.
3. Unscrew the 2 screws and remove the G-P.C.Board.

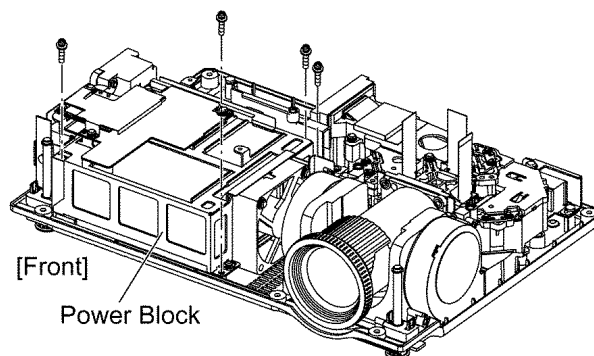


7.9. Removal of B/Q-Module

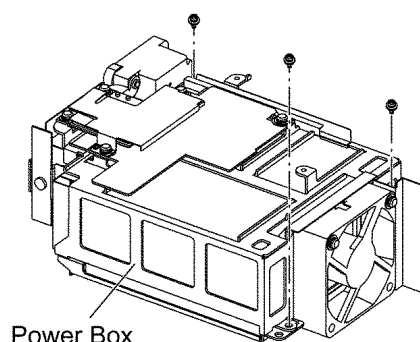
1. Remove the lamp unit according to the section 7.11. "Removal of Lamp Unit".
2. Remove the A-P.C.Board block according to the steps 1 through 6 in the section 7.3. "Removal of A-P.C.Board".
3. Unscrew the 2 screws and remove the lamp unit terminal.
4. Unscrew the 2 screws and remove the exhaust fan .



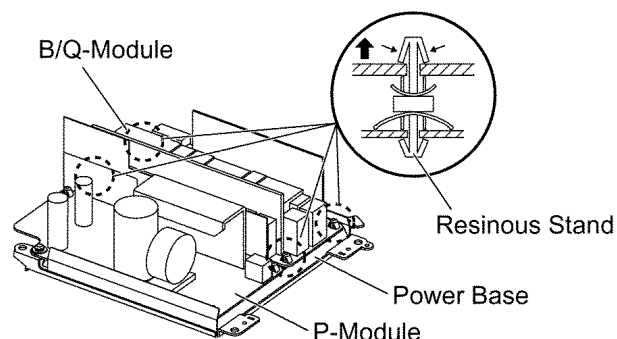
5. Unscrew the 4 screws and remove the power block (P-Module and B/Q-Module).



6. Unscrew the 3 screws and remove the power box.

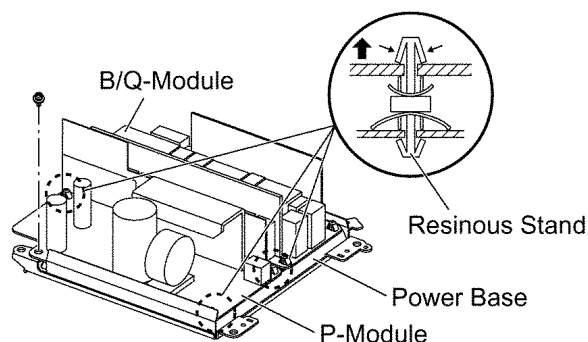


7. While pressing to shut each hook of the 4 resinous stands, remove the B/Q-Module.



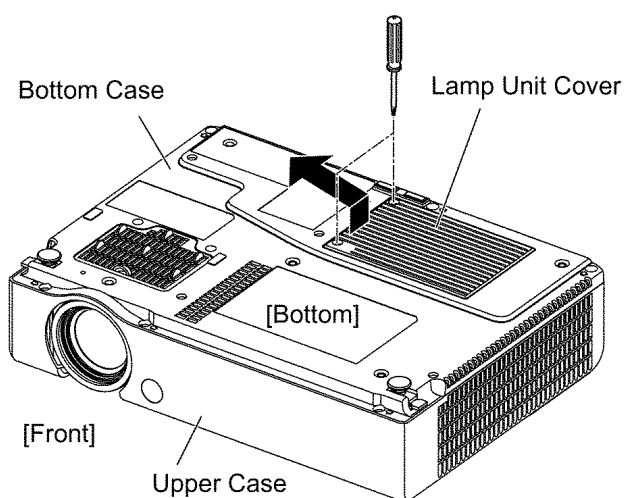
7.10. Removal of P-Module

1. Remove the power block and power box according to the steps 1 through 6 in the section 7.9. "Removal of B/Q Module".
2. Unscrew the 1 screw.
3. While pressing to shut each hook of the 3 resinous stands, remove the P-Module.

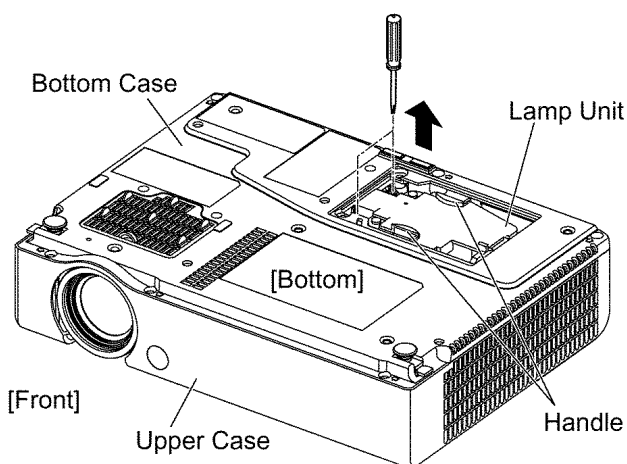


7.11. Removal of Lamp Unit

1. Turn the projector upside down.
2. Loosen the 2 screws until they idle, remove the lamp unit cover.



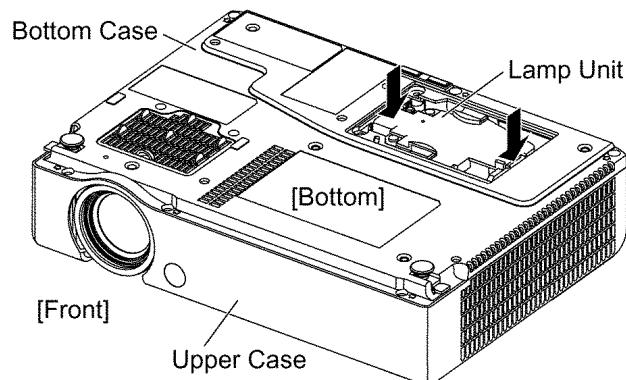
3. Loosen the 2 screws until they idle, remove the lamp unit with the handle.



Note:

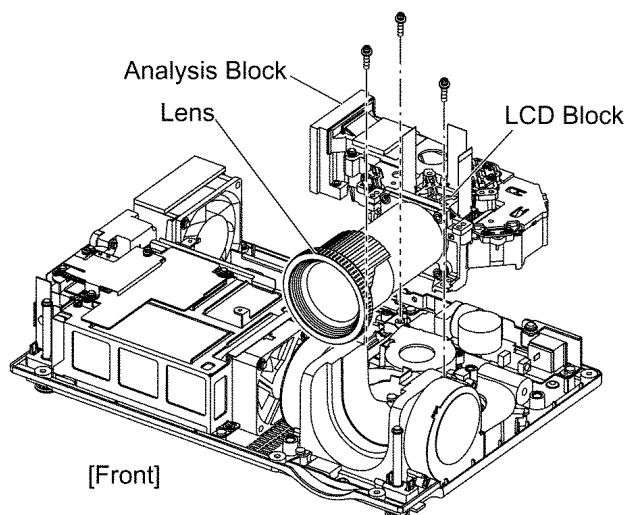
- When installing the lamp unit (or a new one) in the main unit, place it in a specified position and press the connector side and the opposite side of the lamp unit (arrow positions shown in the figure below), and confirm the lamp unit is inserted securely.

Then, tighten the 2 screws fixing the lamp unit, and attach the lamp unit cover.

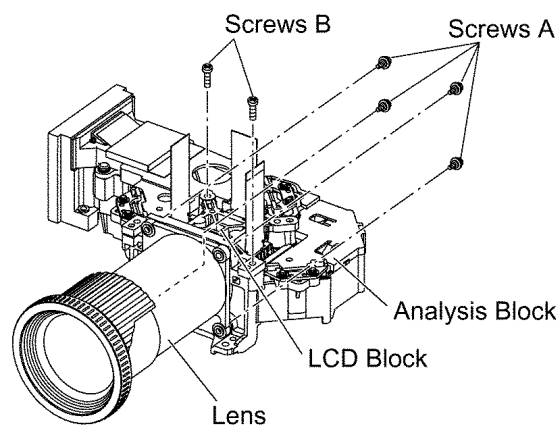


7.12. Removal of Analysis Block and Lens

1. Remove the lamp unit according to the section 7.11. "Removal of Lamp Unit".
2. Remove the A-P.C.Board block according to the steps 1 through 6 in the section 7.3. "Removal of A-P.C.Board".
3. Unscrew the 3 screws and remove the analysis block, LCD block and lens.



4. Unscrew the 4 screws A and remove the lens.
5. Unscrew the 2 screws B and remove the LCD block (the analysis block remains).

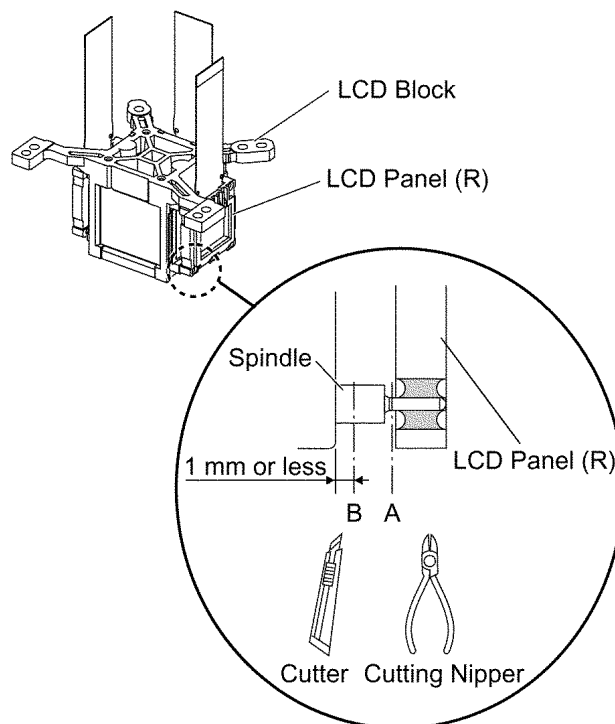
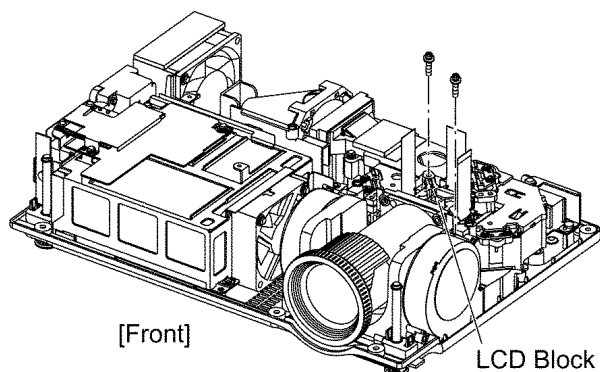


7.13. Removal of LCD Block

1. Remove the A-P.C.Board block according to the steps 1 through 6 in the section 7.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the LCD block.

Note:

- Be careful not to touch the surface of prism and LCD panel.



7.14. Replacement of LCD Panel

- The procedure is described as an example of LCD panel (R).

1. Remove the LCD block according to the section 7.13. "Removal of LCD Block".
2. Cut the 4 LCD panel installation spindles at the position A and remove the LCD panel.
3. Cut the 4 LCD panel installation spindles at the position B and remove them.

Notes:

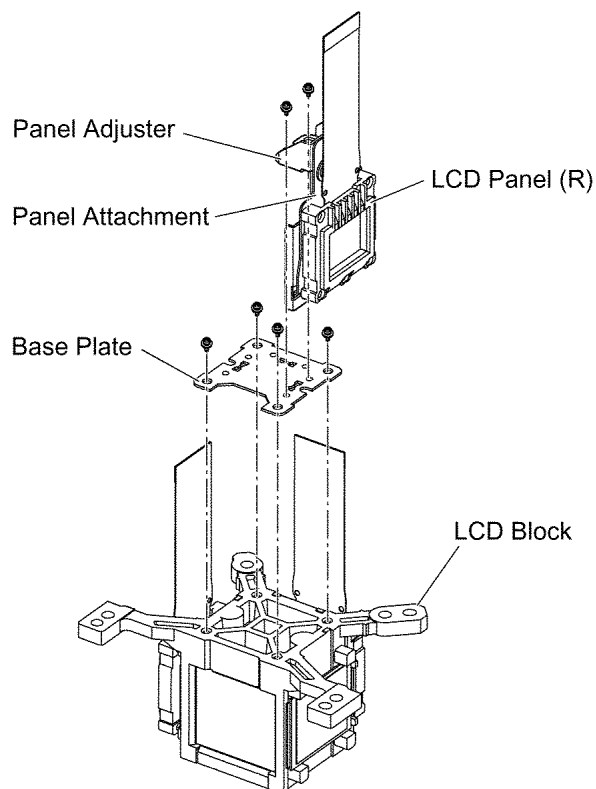
- Work carefully not to apply external force around the spindle part by using a cutter, cutting nipper or the like for cutting the spindle.
- Adjust the height after the spindle is cut to 1 mm or less.

4. Attach the base plate with 4 screws.

5. Tighten the 2 screws temporarily just until new LCD panel (with the panel attachment and panel adjuster) can be shifted by your fingers.

Note:

- The panel adjuster complete set (adjuster, attachment and base plate) is the option for service.



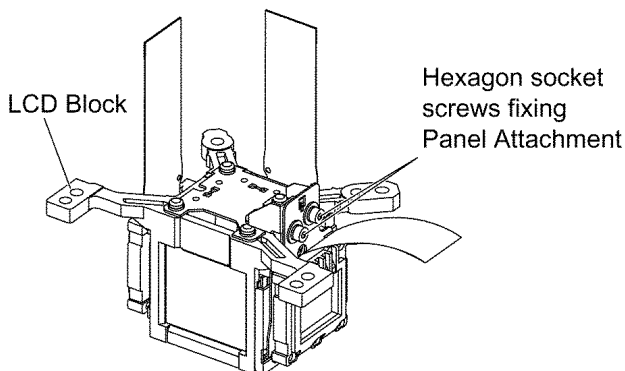
6. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.

7. Adjust the convergence according to the section 8.4. "Convergence Adjustment".

8. After the adjustment, while paying attention not to vary the adjusting result, tighten the 2 screws fixing the panel attachment with a hexagon head wrench.

Notes:

- Prepare a hexagon head wrench processed short.

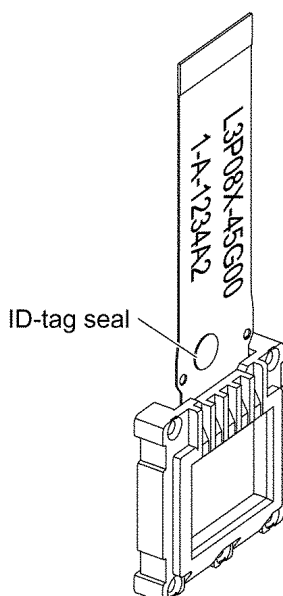


9. Reassemble the projector as it was.

7.15. LCD Panel Discrimination

ID-tag seal color	LCD panel
Red	LCD panel (R)
Blue	LCD panel (B)
(No seal)	LCD panel (G)

- Since the ID-tag seal is pasted to the FPC of LCD Panel, (R), (G) or (B) can be easily identified by the color of the seal.
- Finally, identify the panel color by the part number printed on the FPC.



7.16. LCD Panel Combination

- Part number is printed on the FPC of LCD Panel.
- When replacing LCD Panel, use a component which has the same part number as the original.

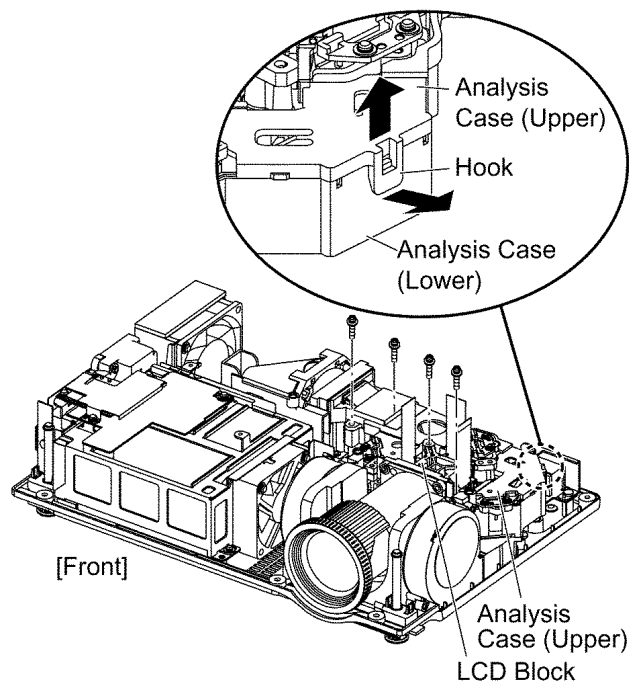
LCD panel	Part No.	ID-tag seal
R	L5BDAXQ00224 (L3P08X-45G10)	Red
G	L5BDAXQ00225 (L3P08X-45G10)	—
B	L5BDAXQ00226 (L3P08X-45G10)	Blue

7.17. Replacement of Incidence Polarizer (R and B)

1. Remove the LCD block according to the section 7.13. "Removal of LCD Block".
2. Unscrew the 2 screws.
3. Remove the analysis case (upper) while expanding the hook of it outside.

Note:

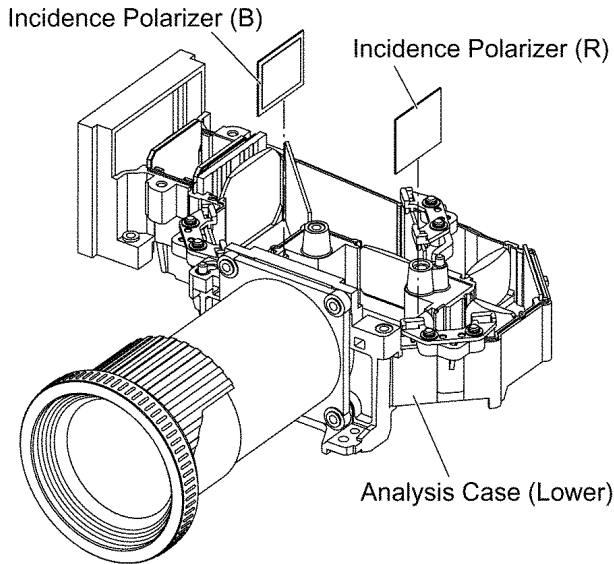
- Because the hook is damaged easily, be careful not to expand it excessively.
- The incidence polarizer (G) is installed in the analysis case (upper). Handle with care not to apply external force to the incidence polarizer (G).



4. Replace the incidence polarizer.

Note:

- Be careful not to touch the surface of incidence polarizer.

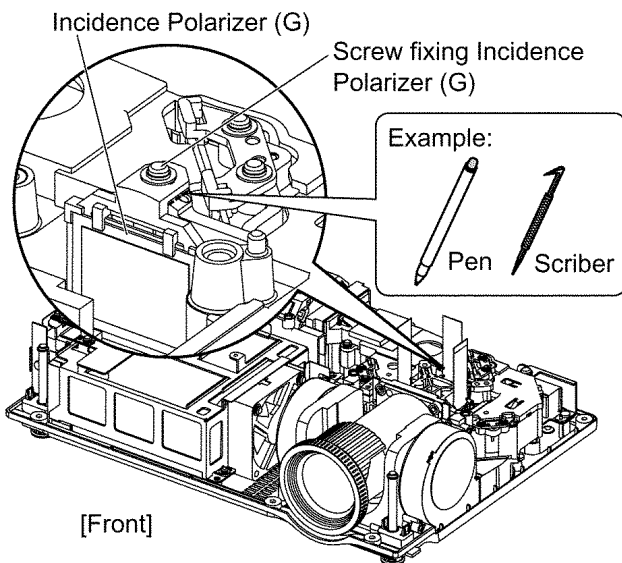


7.18. Replacement of Incidence Polarizer (G)

1. Remove the A-P.C.Board block according to the steps 1 through 6 in the section 7.3. "Removal of A-P.C.Board".
2. Mark positions of the incidence polarizer (G).

Note:

- Mark accurately as possible because the marks will be used for resetting the incidence polarizer position.



3. Unscrew the 1 screw and remove the incidence polarizer (G).
4. Attach a new incidence polarizer (G) and align it with the mark.
5. Tighten the 1 screw with care not to move the incidence polarizer position.

7.19. Replacement of Projection Polarizer

- The procedure is described as an example of projection polarizer (R).

1. Remove the LCD block according to the section 7.13. "Removal of LCD Block".
2. Remove the projection polarizer which requires replacing. (The projection polarizer is secured with adhesive tape.)

Notes:

- Be careful not to damage peripheral components (prism, LCD panel, etc.).
- Use tweezers.

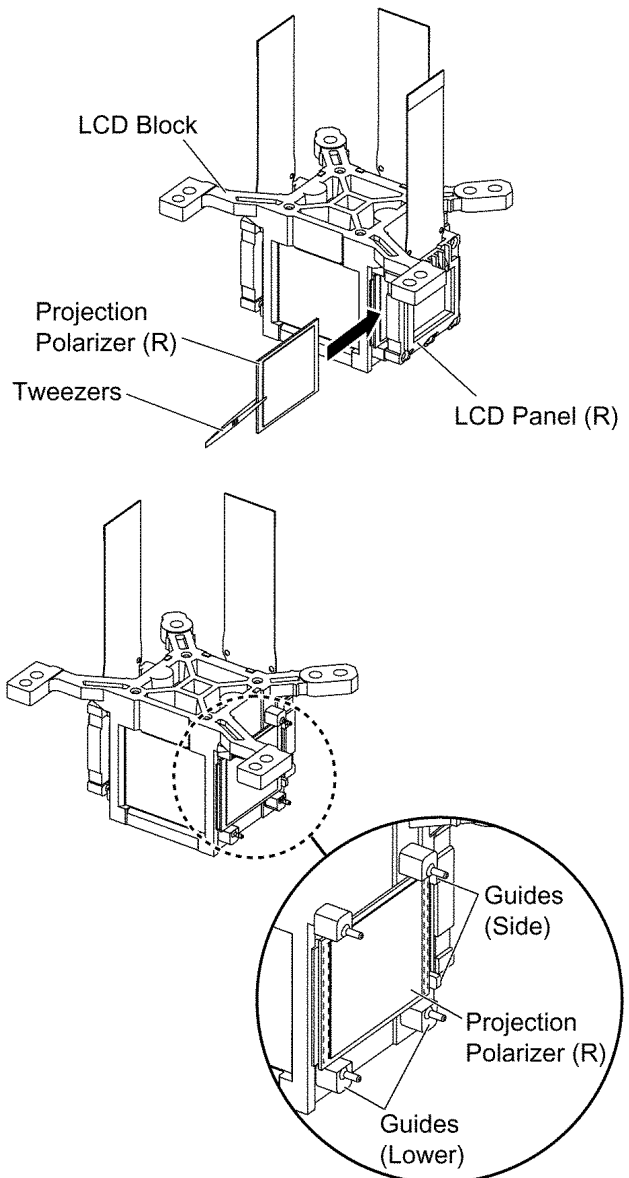
3. Install new projection polarizer.

- a. Put adhesive tape on the projection polarizer.
- b. Stick the projection polarizer on the specified position.

Notes:

- Align the projection polarizer with the guides (lower, side) of LCD block.
- Be careful not to touch the surface of projection polarizer.
- Use tweezers.

- c. Press the adhesive part and secure the projection polarizer.

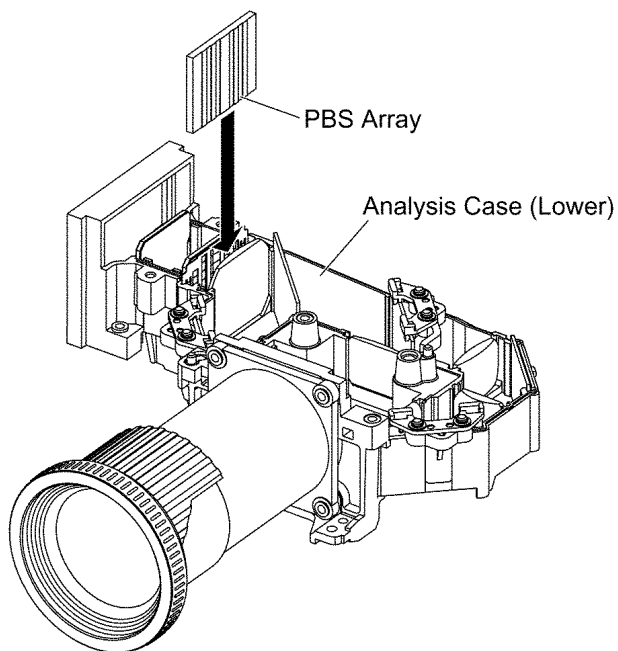


7.20. Replacement of PBS Array (Analysis Block)

1. Remove the analysis case (upper) according to the steps 1 through 3 in the section 7.17. "Replacement of Incidence Polarizer (R and B)".
2. Remove the PBS array.
3. Install new PBS array.

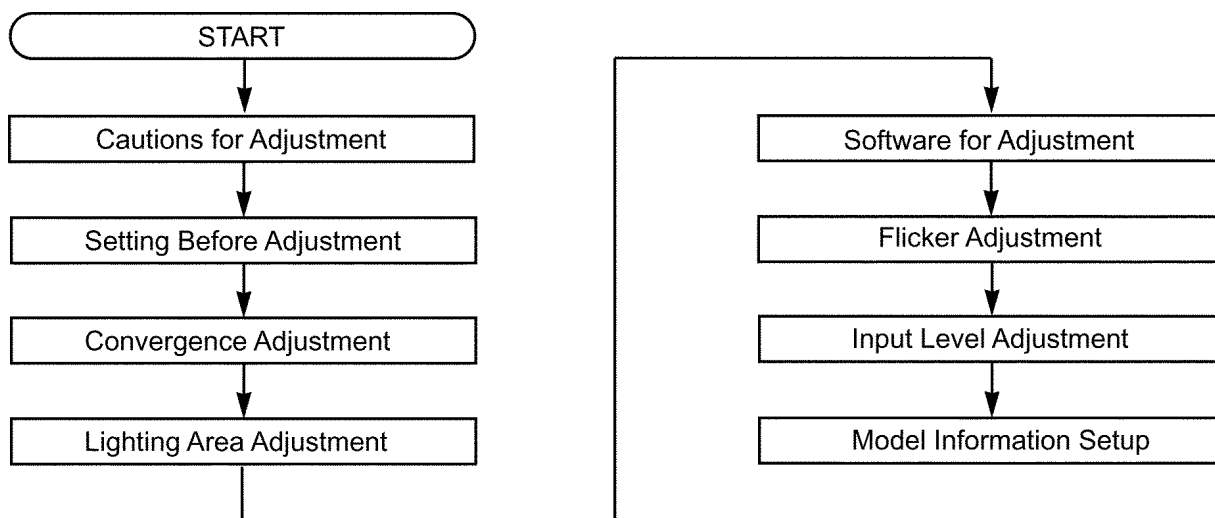
Note:

- Be careful not to mistake the direction (inside and outside, upper and lower).
- Be careful not to touch the surface of PBS array.



8 Measurement and Adjustments

8.1. Adjustment Procedure Flowchart

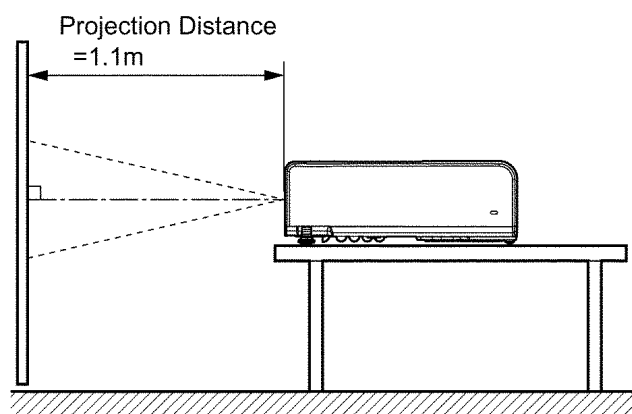


8.2. Cautions for Adjustment

- Never unplug the power cord until the power indicator on the projector illuminates red.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

8.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.



8.4. Convergence Adjustment

Execute this adjustment when replacing the LCD panel .

8.4.1. Tools to be used

Service Kit (Part No. TZSH07015): This kit is composed of 3 extension flexible cables and 3 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

8.4.2. Preparation

1. Loosen 2 screws fixing the panel adjuster and 2 screws fixing the panel attachment, then tighten the 4 screws temporarily just until the LCD panel can be shifted by your fingers.

Note:

- See figures in the section 7.14. "Replacement of LCD Panel" for 2 screws fixing the panel adjuster and 2 screws fixing the panel attachment.

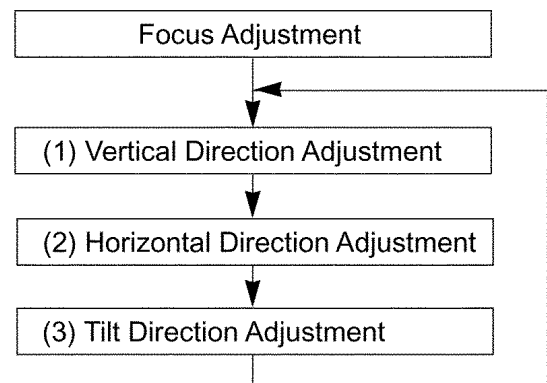
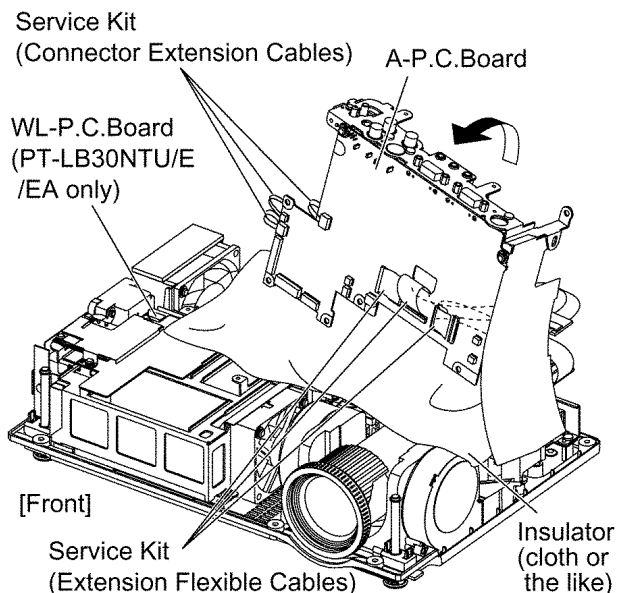
2. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.
3. Connect the service kit (extension cables).

- Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
- Power fan connector - Connector (A16) on A-P.C.Board
- Exhaust fan connector - Connector (A17) on A-P.C.Board
- PBS fan connector - Connector (A19) on A-P.C.Board

4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



Repeat steps (1) to (3) until the green and blue crosshatch patterns merge into a cyan pattern.

8. After the adjustment, reassemble the projector according to the steps 8 through 9 in the section 7.14. "Replacement of LCD Panel".

8.4.3. Adjustment Procedure

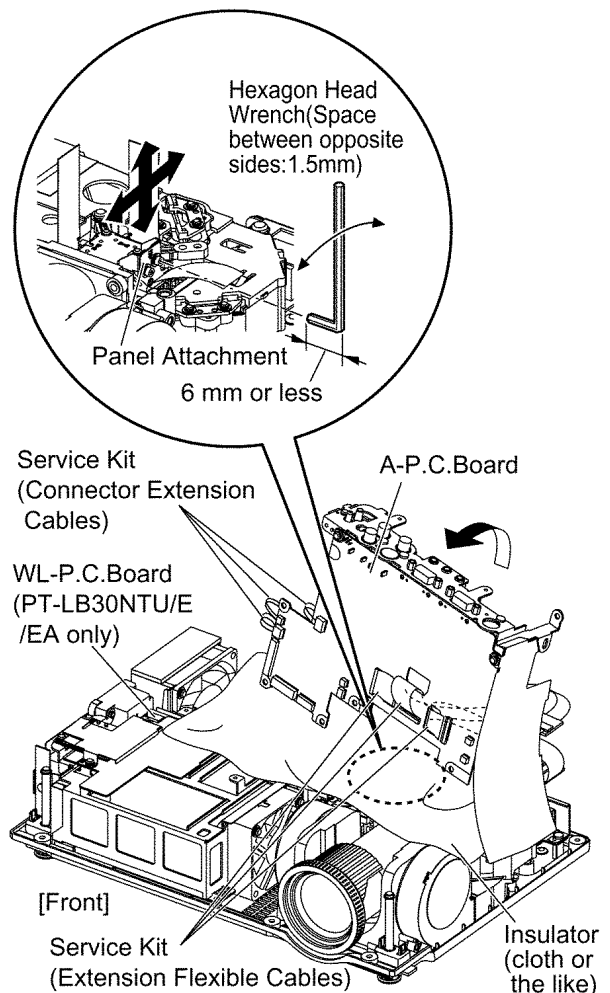
[When replacing single LCD panel (R, G or B)]

Prepare 2 pieces of thick black paper (23 mm × 100 mm) that can be shaded.

- Cover and shade LCD panels with the paper except the panel for adjustment.

The procedure is described as an example when LCD panel (B) is replaced.

1. Display the green crosshatch pattern and adjust the lens focus.
2. Display green and blue crosshatch patterns.
3. Adjust focus by shifting the panel adjuster for LCD panel (B) back and forth, then tighten the 2 screws.
4. Adjust the LCD panel (B) position so that the vertical center of blue crosshatch pattern is overlapped with the vertical center of green crosshatch pattern.
5. Adjust the LCD panel (B) position so that the horizontal center of blue crosshatch pattern is overlapped with the horizontal center of green crosshatch pattern.
6. Correct the tilt of the blue crosshatch pattern by adjusting the LCD panel (B) position.
7. Display green, red and blue crosshatch patterns and confirm the convergence. If it is necessary, fine adjust the convergence so that the red and/or blue crosshatch pattern is overlapped with green one.



8.5. Lighting Area Adjustment

8.5.1. Tools to be used

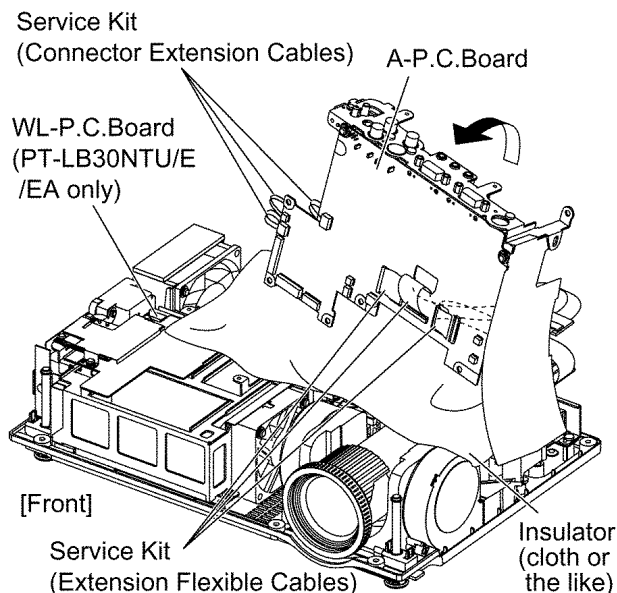
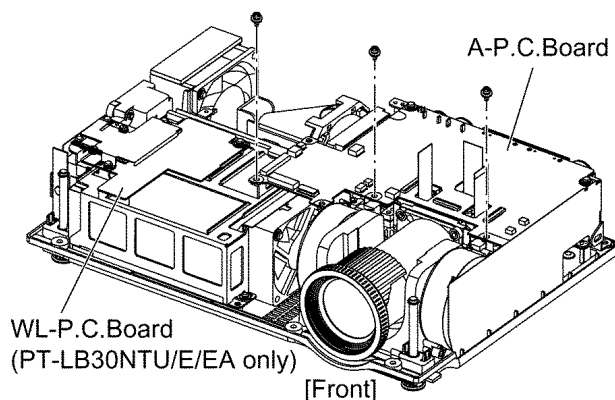
Service Kit (Part No. TZSH07015): This kit is composed of 3 extension flexible cables and 3 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

8.5.2. Preparation

1. Remove the connector cover and lamp shield according to the steps 1 through 4 in the section 7.3. "Removal of A-P.C.Board".
2. Unscrew the 3 screws.



3. Connect the service kit (extension cables).
 - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
 - Power fan connector - Connector (A16) on A-P.C.Board
 - Exhaust fan connector - Connector (A17) on A-P.C.Board
 - PBS fan connector - Connector (A19) on A-P.C.Board
4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.

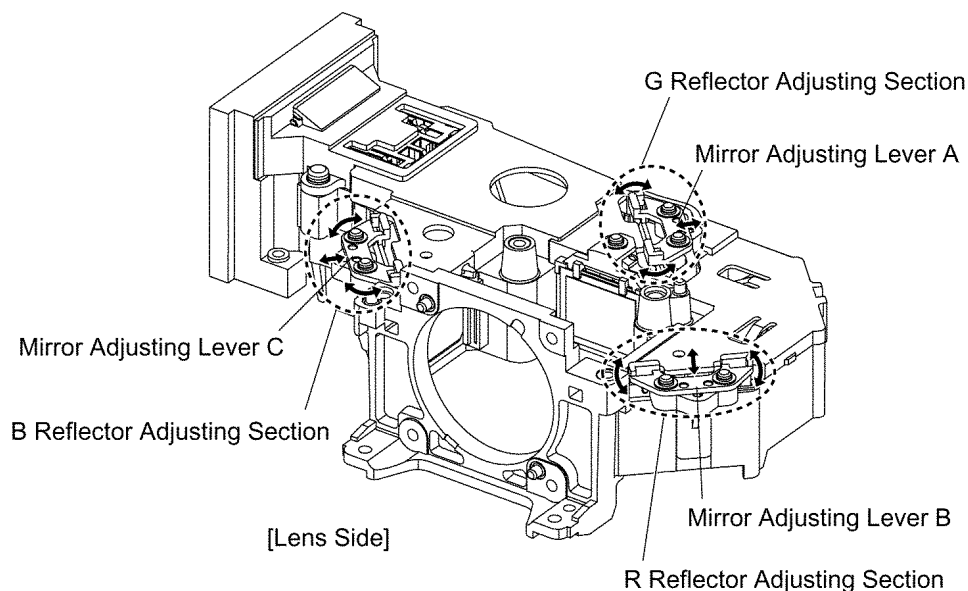
8.5.3. Adjustment Procedure

8.5.3.1. Outline

When the lighting area is off from the adjustment and color unevenness appears, adjust the lighting area into correct position.

Symptom	Measure
Magenta unevenness	G Reflector Adjustment
Cyan unevenness	R Reflector Adjustment
Yellow unevenness	B Reflector Adjustment

- Shifting the mirror adjusting lever horizontally, adjust color unevenness on the screen upper/lower sides.
- Twisting the mirror adjusting lever, adjust color unevenness on the screen right/left sides.



[Above figure is shown only the analysis block for explanation.]

8.5.3.2. G Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever A just until the lever can be shifted.
3. Adjust the mirror adjusting lever A position to minimize color unevenness on the screen by shifting the lever in arrow

directions.

4. Tighten the 2 screws.

8.5.3.3. R Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever B just until the lever can be shifted.
3. Adjust the mirror adjusting lever B position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

8.5.3.4. B Reflector Adjustment

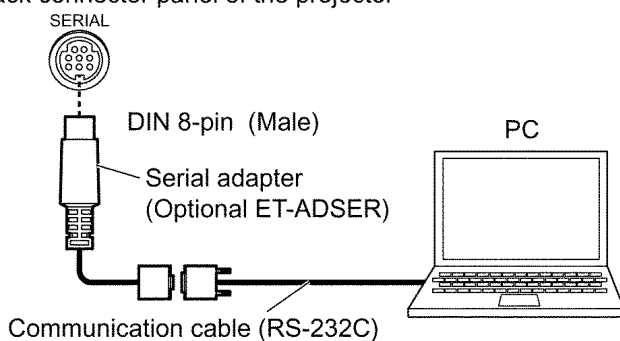
1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever C just until the lever can be shifted.
3. Adjust the mirror adjusting lever C position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

8.6. Software for Adjustment

8.6.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.
- Connect the cable between the projector and a PC as shown below.
- Updating the software will change the version number.

Back connector panel of the projector



8.6.2. Operating Procedure

1. Run software program by the keyboard entry.

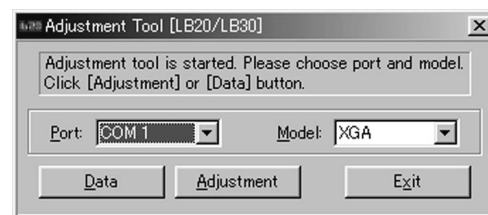
Note:

- Use the software program as below.

Adjustment Tool [LB20/LB30]

2. The first menu is Port and Model selection menu.
3. Adjust the projector by selecting the necessary item from the menu in each stage.

8.6.3. Port and Model Selection Menu



Select the applying item with the list box and click "Data" or "Adjustment".

8.6.3.1. Explanation of Buttons

Port:

Port name of PC which connects with the projector

Model:

Pixels (XGA/S-VGA) of LCD panels of the model involved

Data:

Displays the data transmission/reception menu.

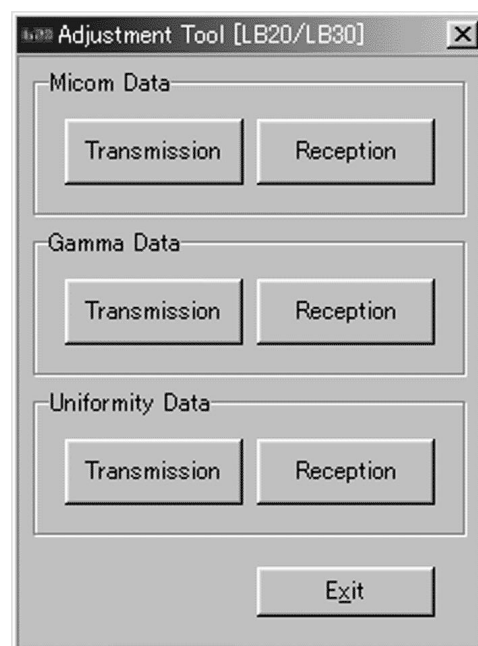
Adjustment:

Displays the adjustment menu.

Exit:

Exits this application.

8.6.4. Data Transmission/Reception Menu



8.6.4.1. Explanation of Buttons

Micom Data Transmission:

Reads the microcomputer data from the file and transmits it to the projector.

Micom Data Reception:

Receives the microcomputer data from the projector and writes it in the file.

Gamma Data Transmission:

Reads the gamma data from the file and transmits it to the

projector.

Gamma Data Reception:

Receives the gamma data from the projector and writes it in the file.

Uniformity Data Transmission:

Reads the color unevenness correction data from the file and transmits it to the projector.

Uniformity Data Reception:

Receives the color unevenness correction data from the projector and writes it in the file.

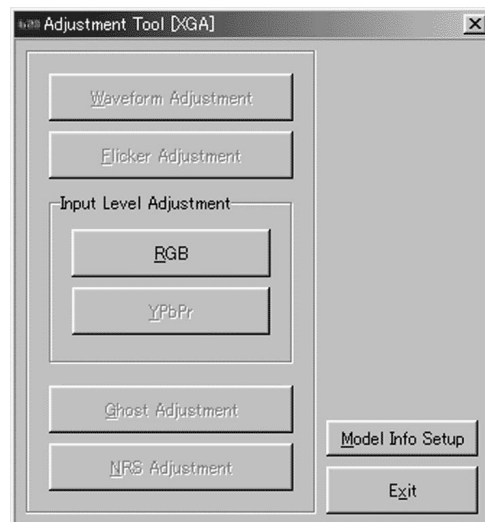
Exit:

Exits this application.

8.6.4.2. Receiving and transmitting of the data

Click a target button and specify a file name.

8.6.5. Adjustment Menu



8.6.5.1. Explanation of Buttons

Input Level Adjustment RGB:

Displays the RGB input level adjustment menu.

Model Info Setup

Displays the model information setup menu.

Exit:

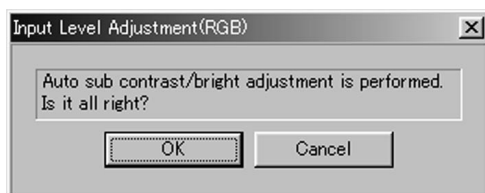
Exits this application.

8.7. Flicker Adjustment

According to the procedure of chapter 5 "Flicker Adjustment Mode", minimize the flicker.

8.8. Input Level Adjustment

8.8.1. Adjustment Menu



8.8.2. Explanation of Buttons

OK:

Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

8.8.3. Equipment to be used

PC, RGB Signal Generator, Software for Adjustment

8.8.4. Adjustment Procedure

1. Display the input level adjustment [RGB] menu.
2. Input a window pattern signal to RGB IN connector.

Note:

- Use approx. 15 % window pattern as follows.
Black background (screen width) : White window

width = 2 : 1

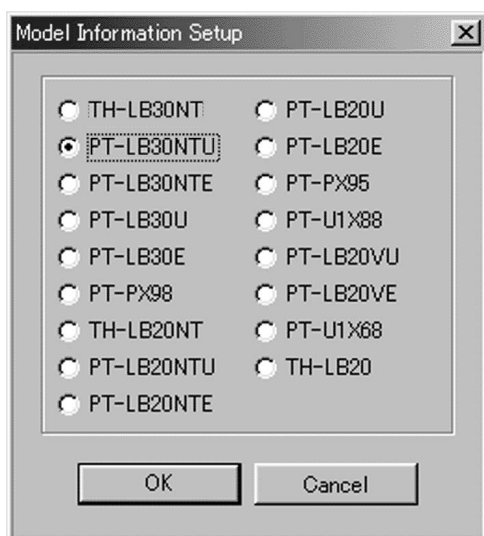
Black background (screen height) : White window
height = 3 : 1

- Use the window pattern of XGA (1 024 × 768).

3. Click the OK button.

8.9. Model Information Setup

8.9.1. Adjustment Menu



8.9.2. Explanation of Buttons

Radio buttons:

Selects the corresponding model name.

OK:

Executes model information setup, then closes this dialog.

Cancel:

Cancels this menu.

8.9.3. Equipment to be used

PC, Software for Adjustment

8.9.4. Setup Procedure

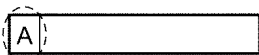
Set the projector into standby mode (Power indicator on the projector control panel illuminated red), and execute the following procedure.

1. Display the model information setup menu.
2. Select the corresponding model name.
3. Click the OK button.

9 Troubleshooting

The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

Note:



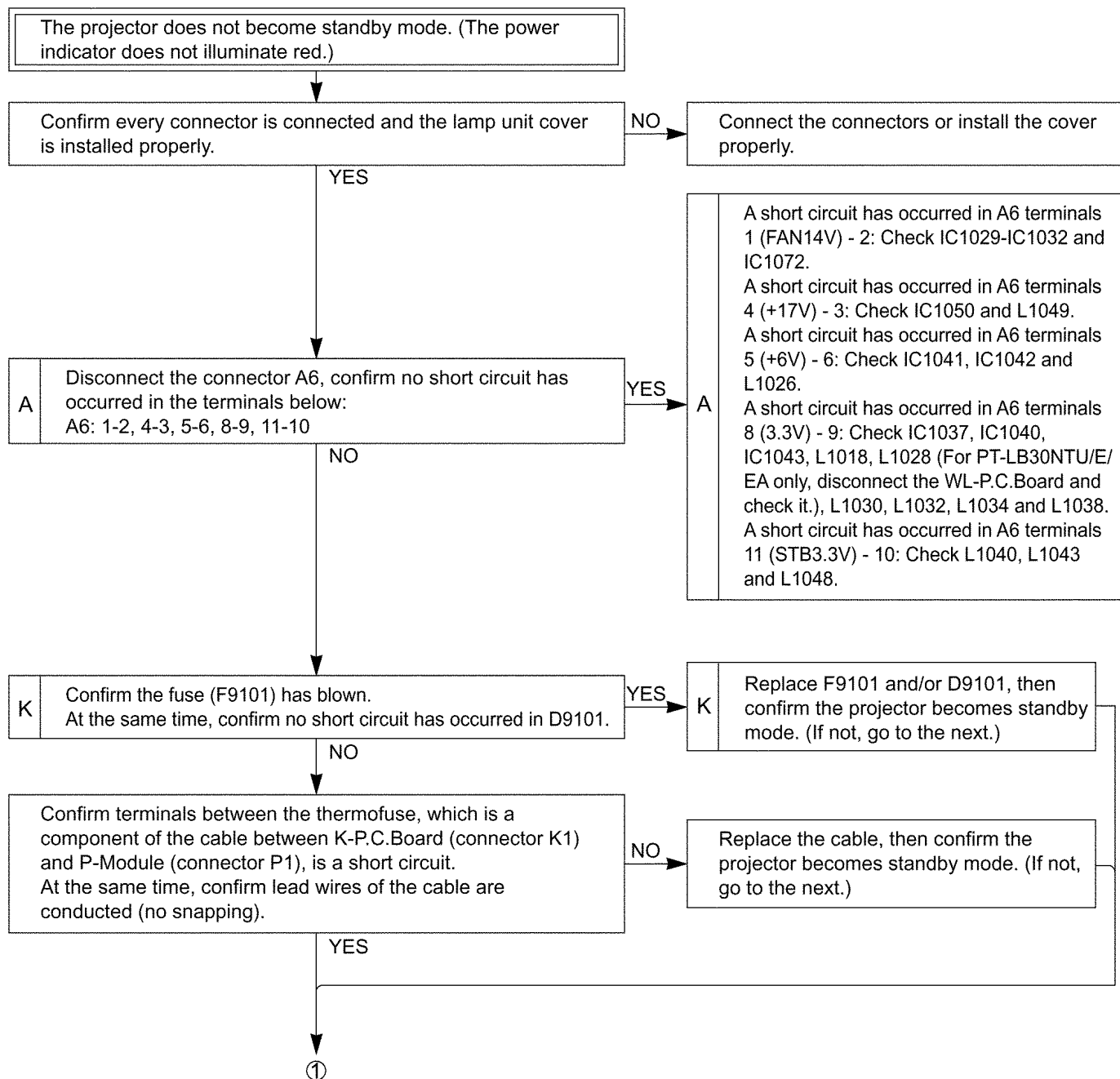
The letter of the alphabet indicates the P.C.Board or Module name.

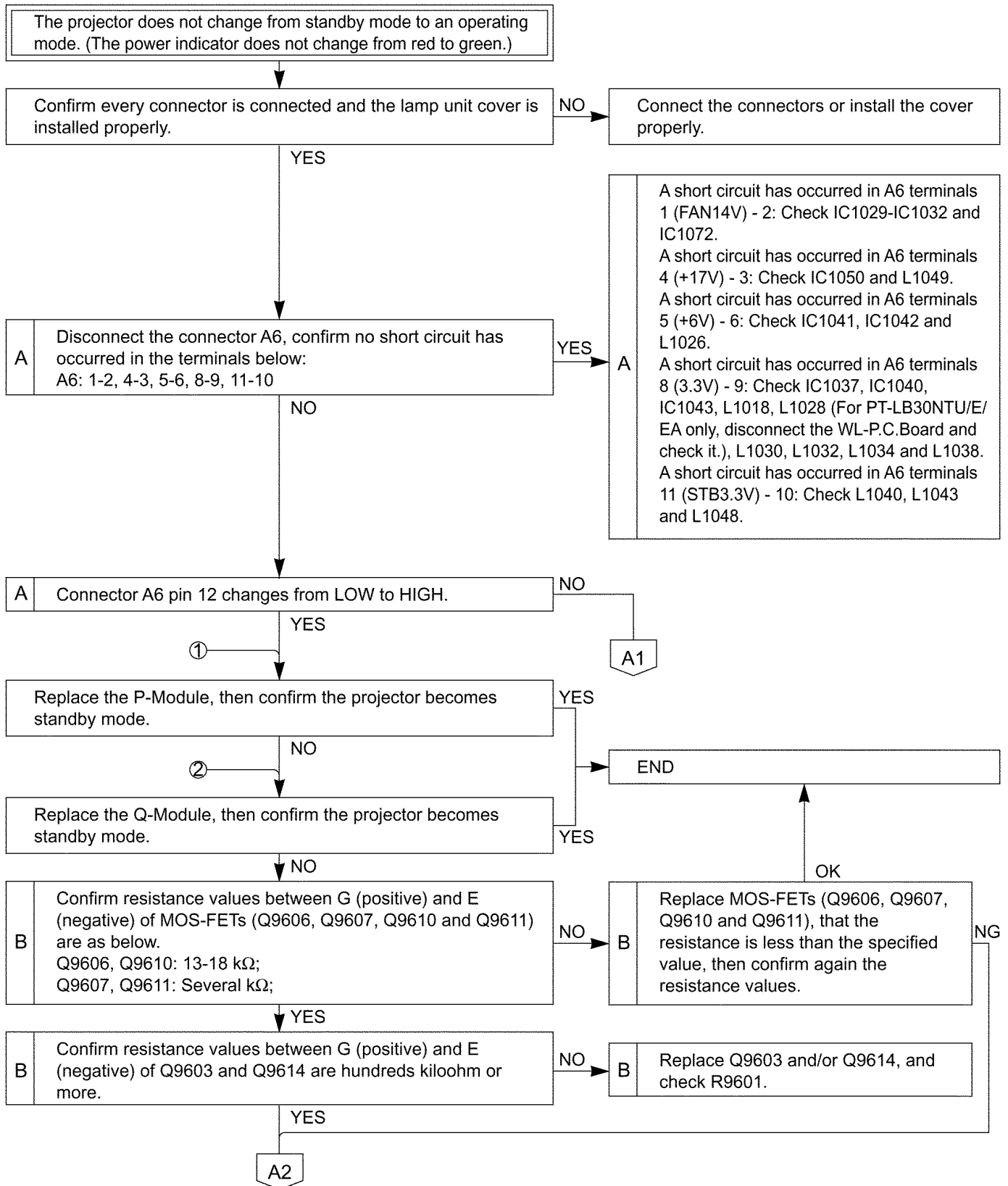
(Example) A: A-P.C.Board, B: B-Module

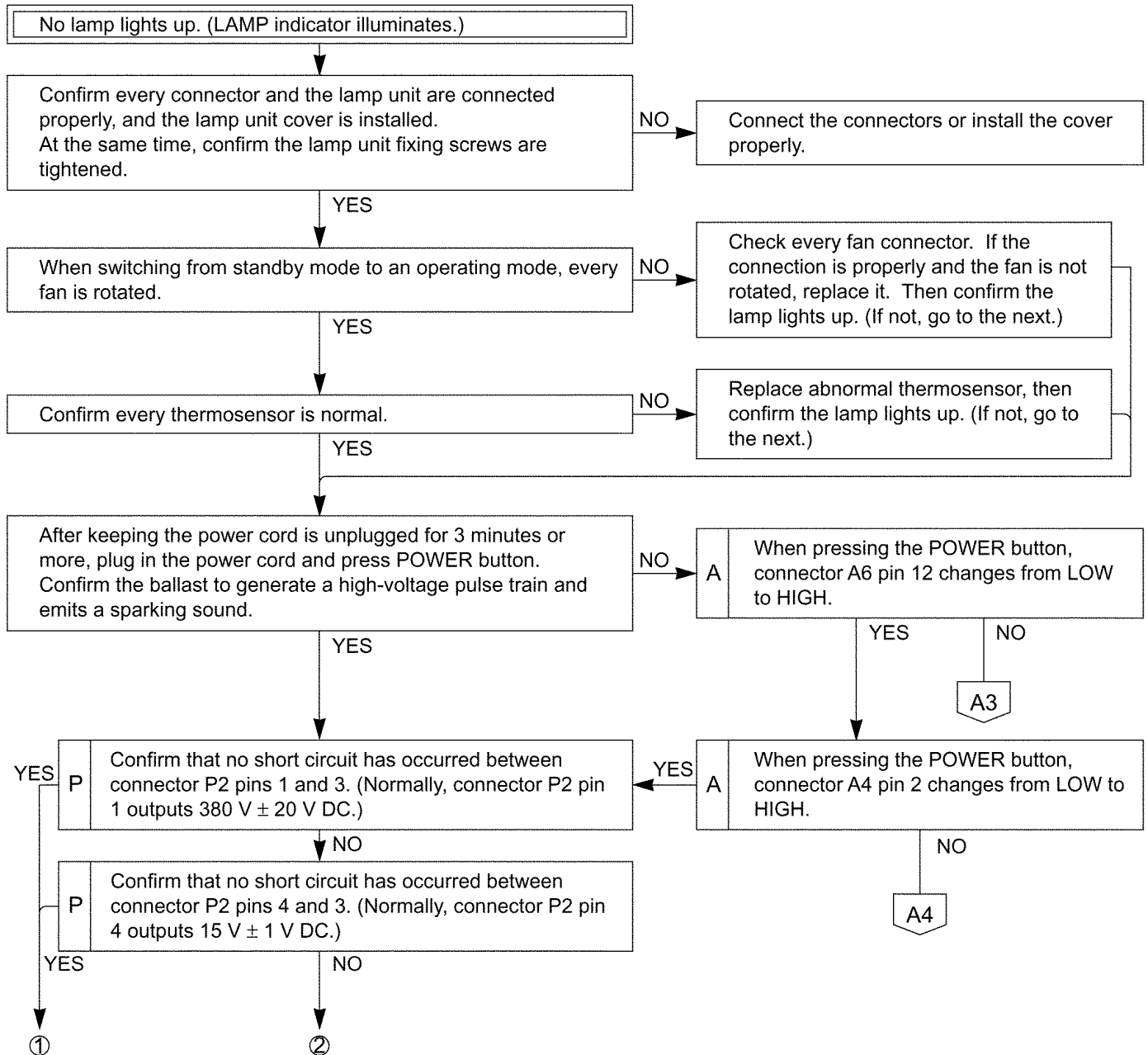
If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 8.6. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1011 and IC1017 from the old P.C.Board and install them on the new one.

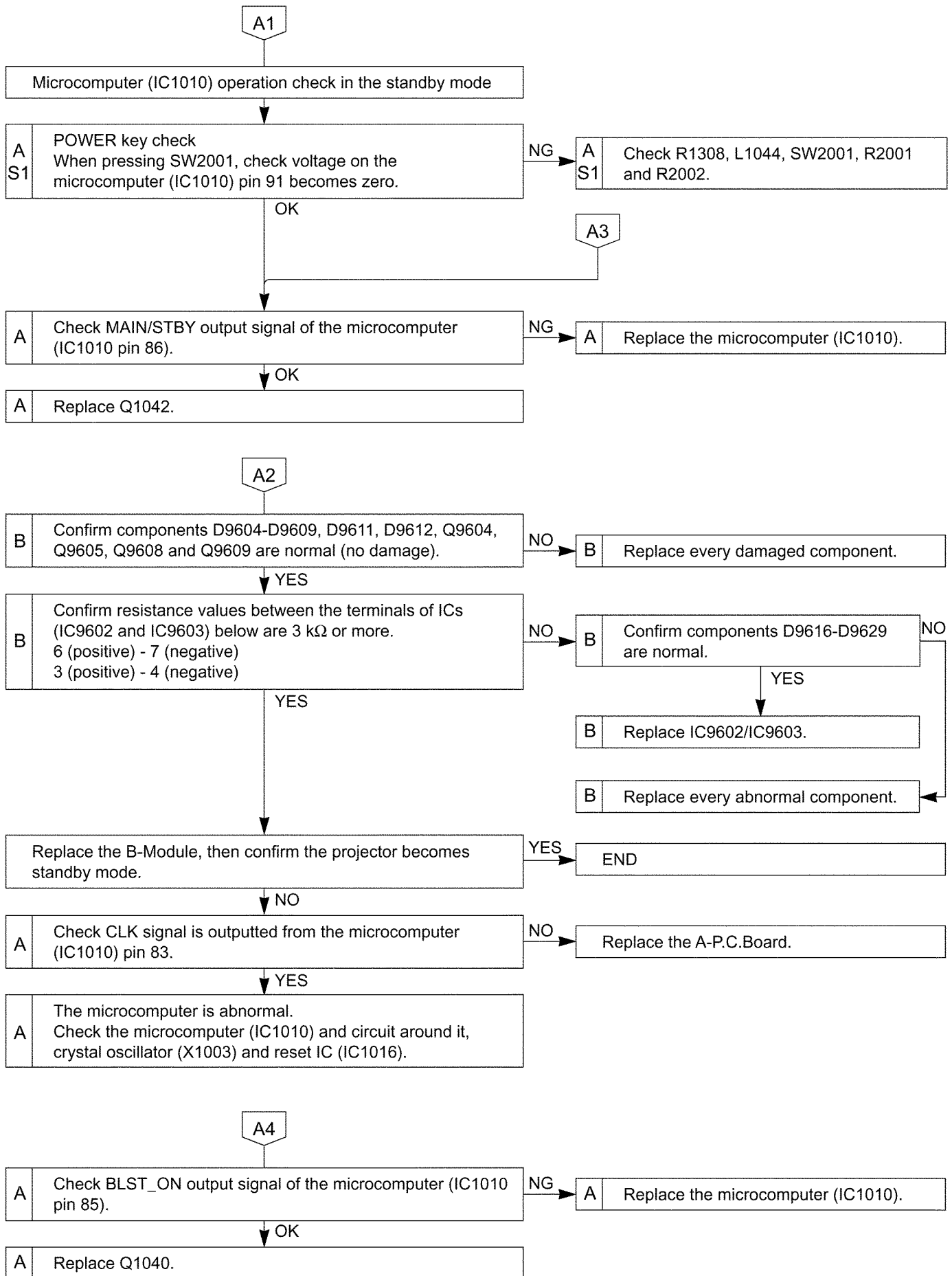
If replacing A-P.C.Board (assembly), adjust the RGB Input Level according to the chapter 8.8. "Input Level Adjustment".

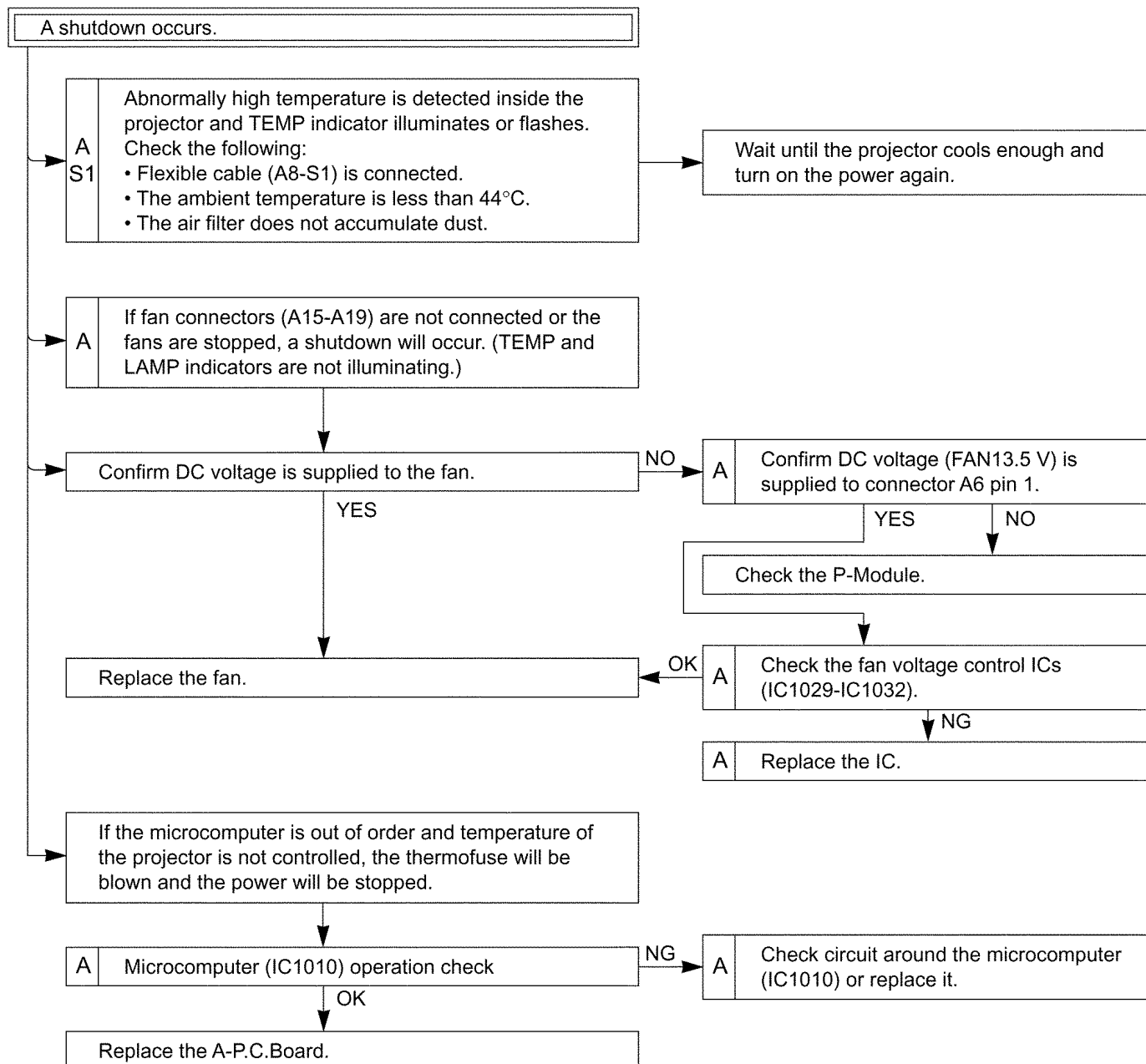
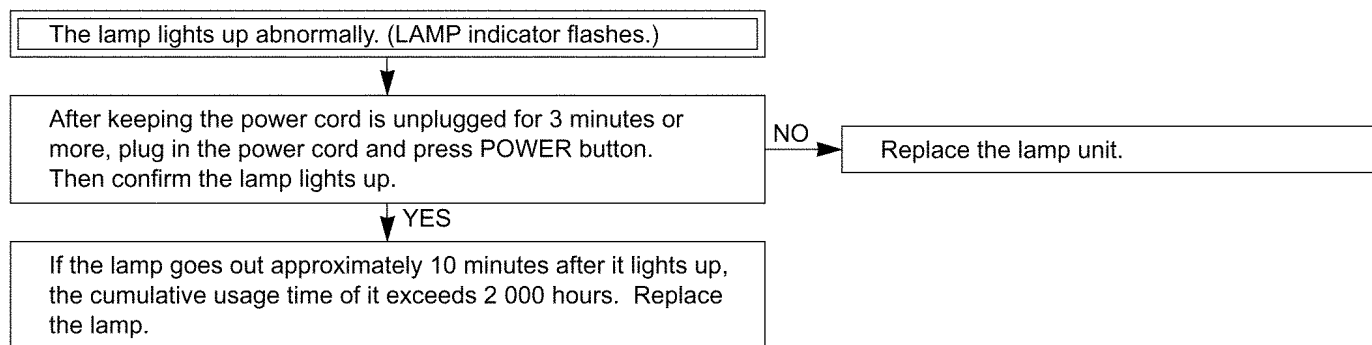
If replacing A-P.C.Board (assembly), set Model Information according to the chapter 8.9. "Model Information Setup".

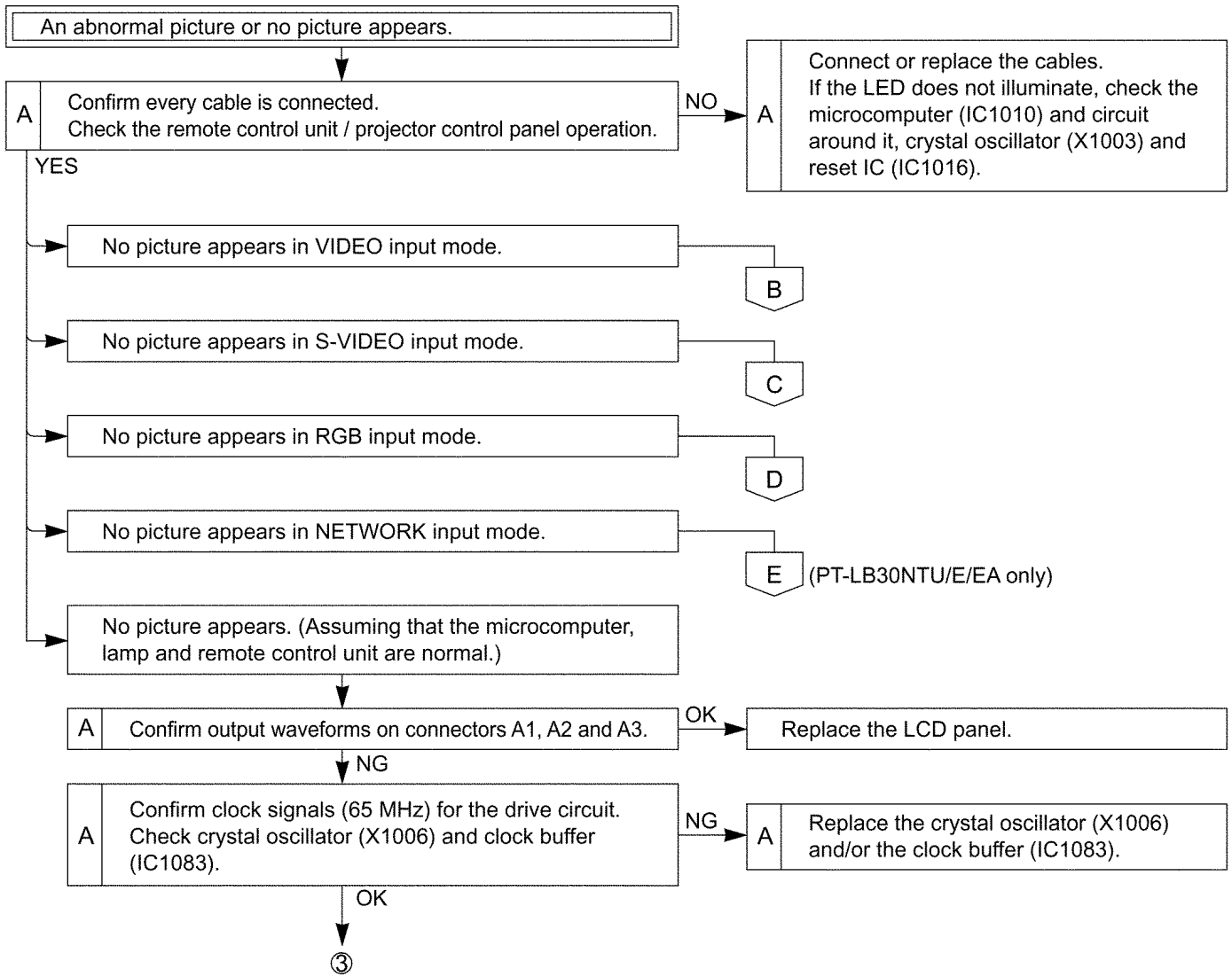


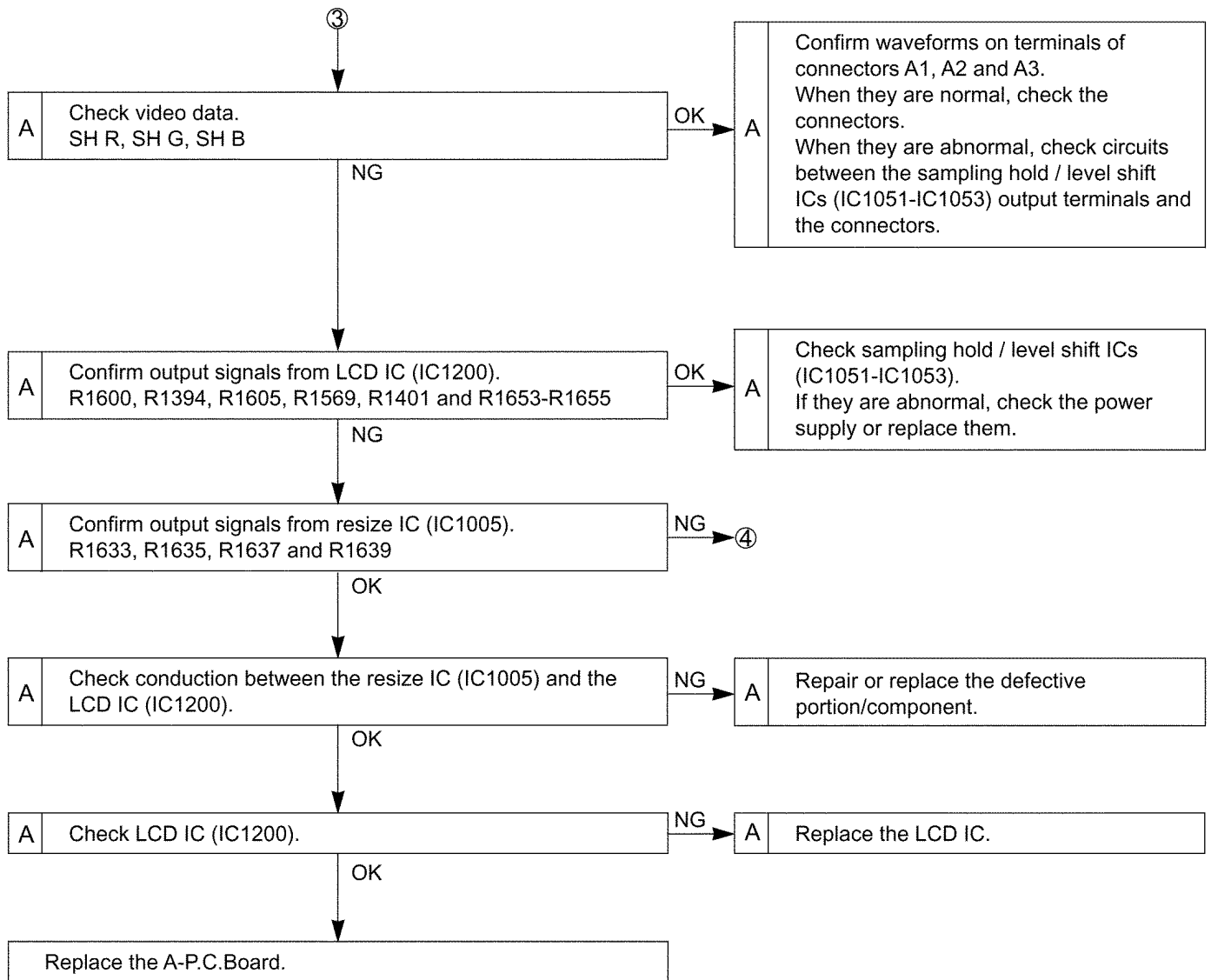


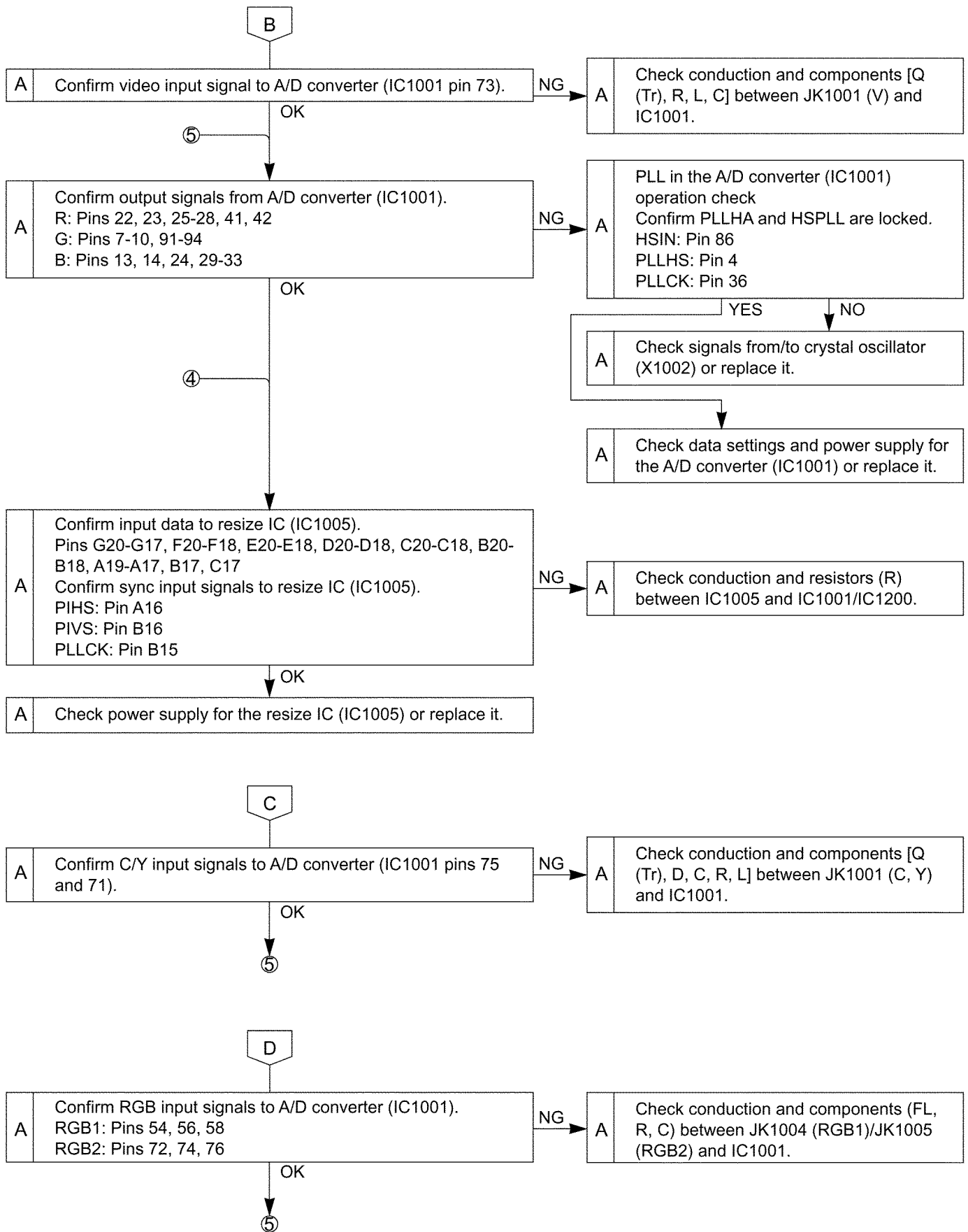


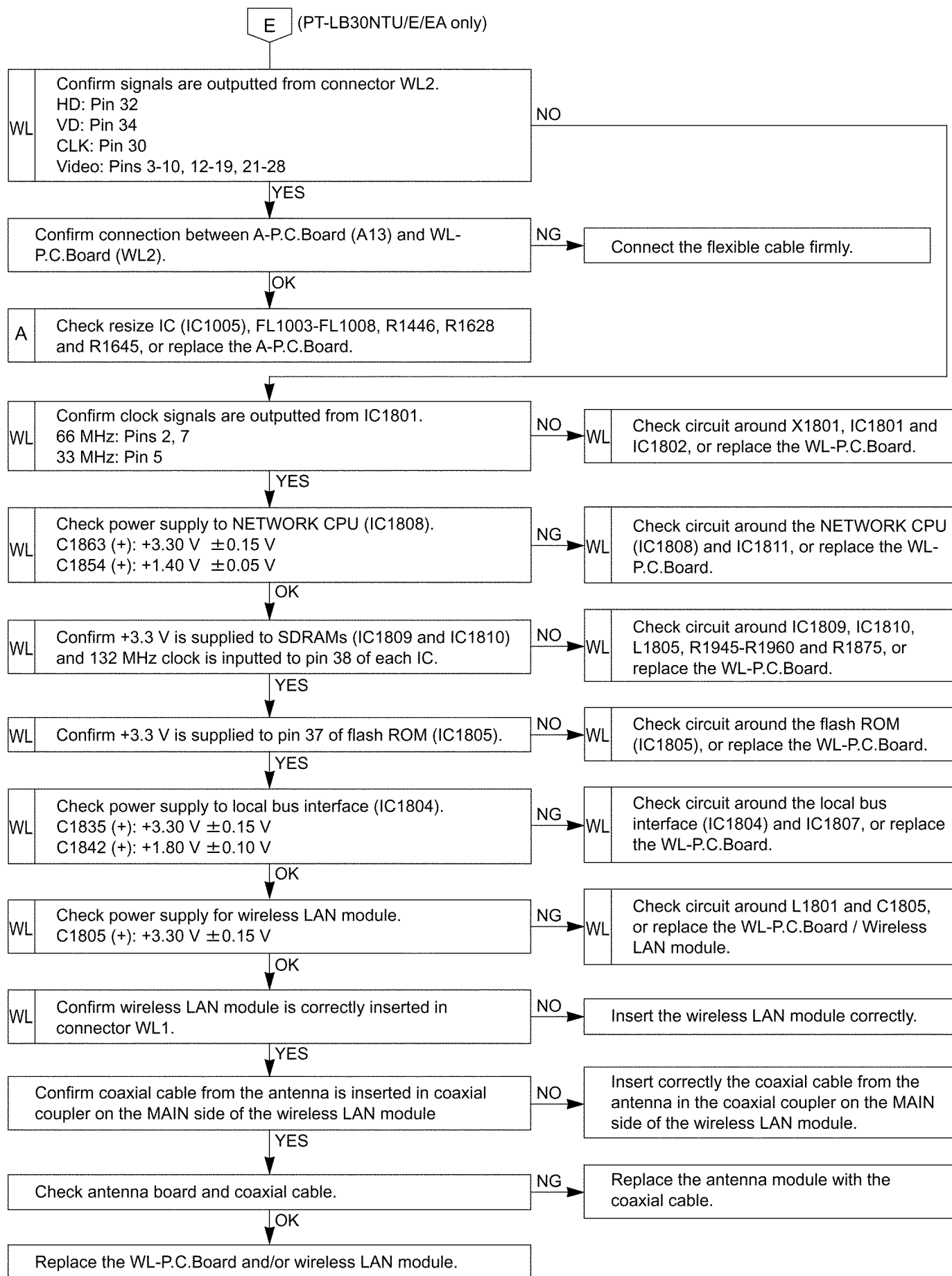


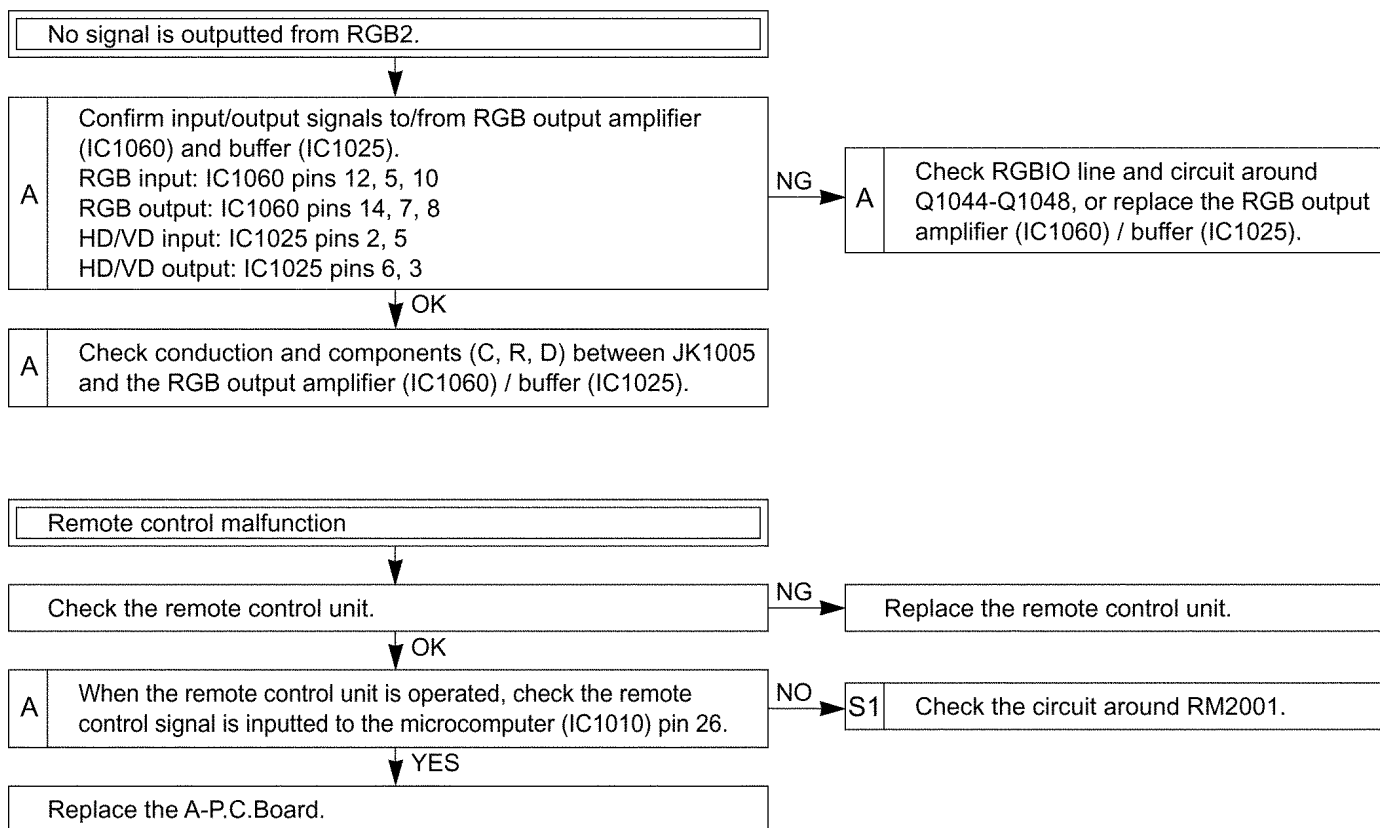


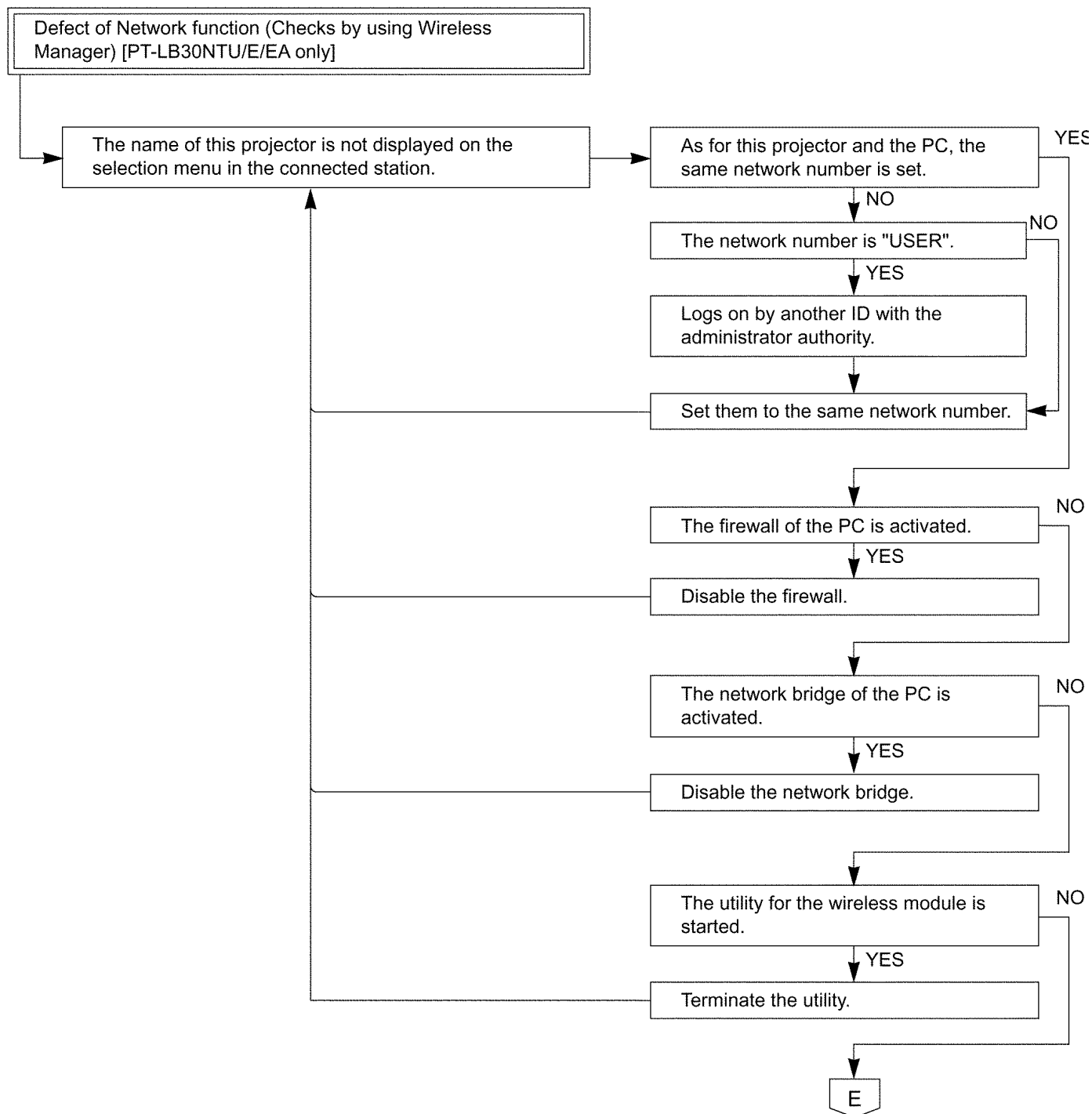








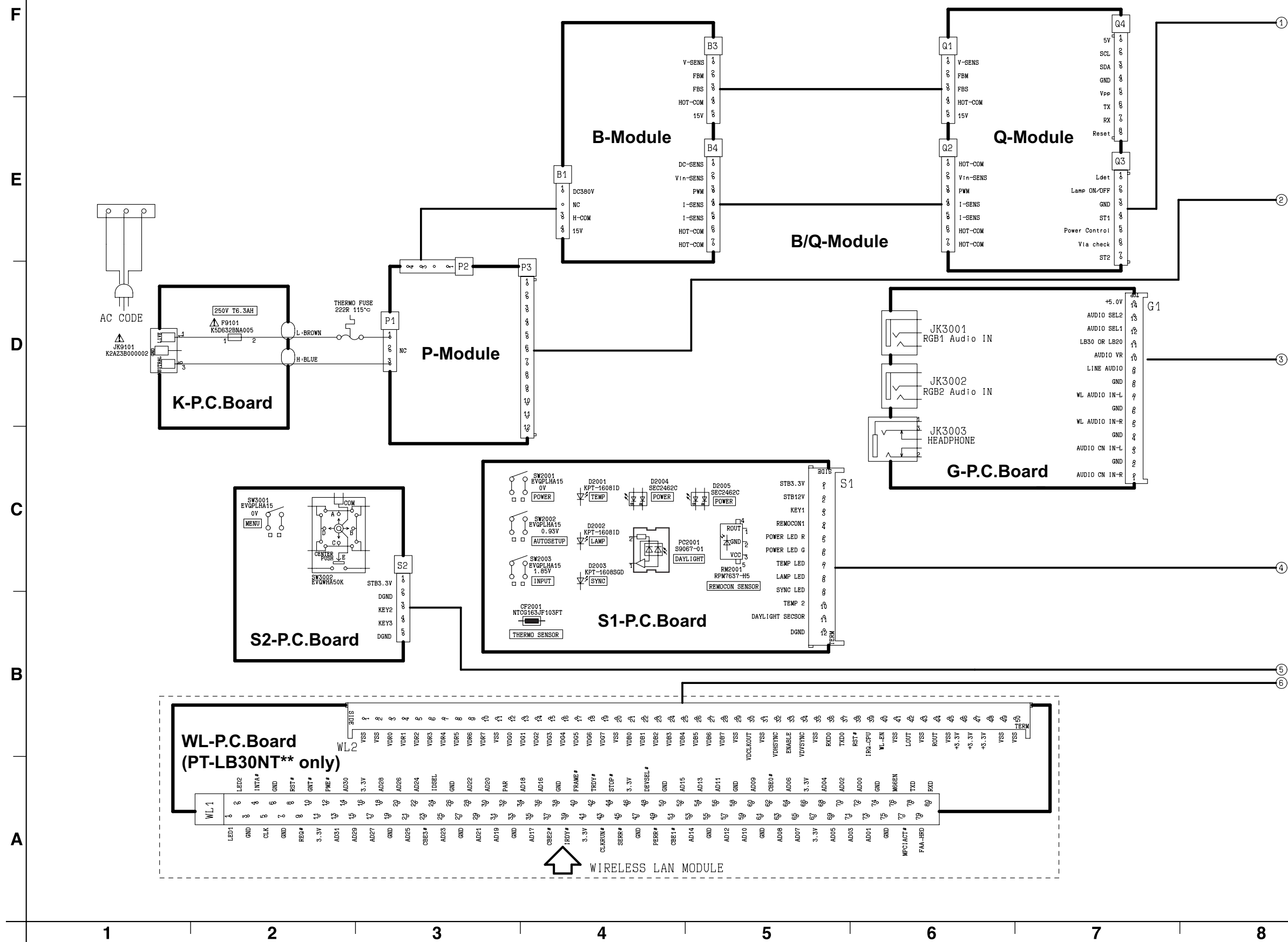




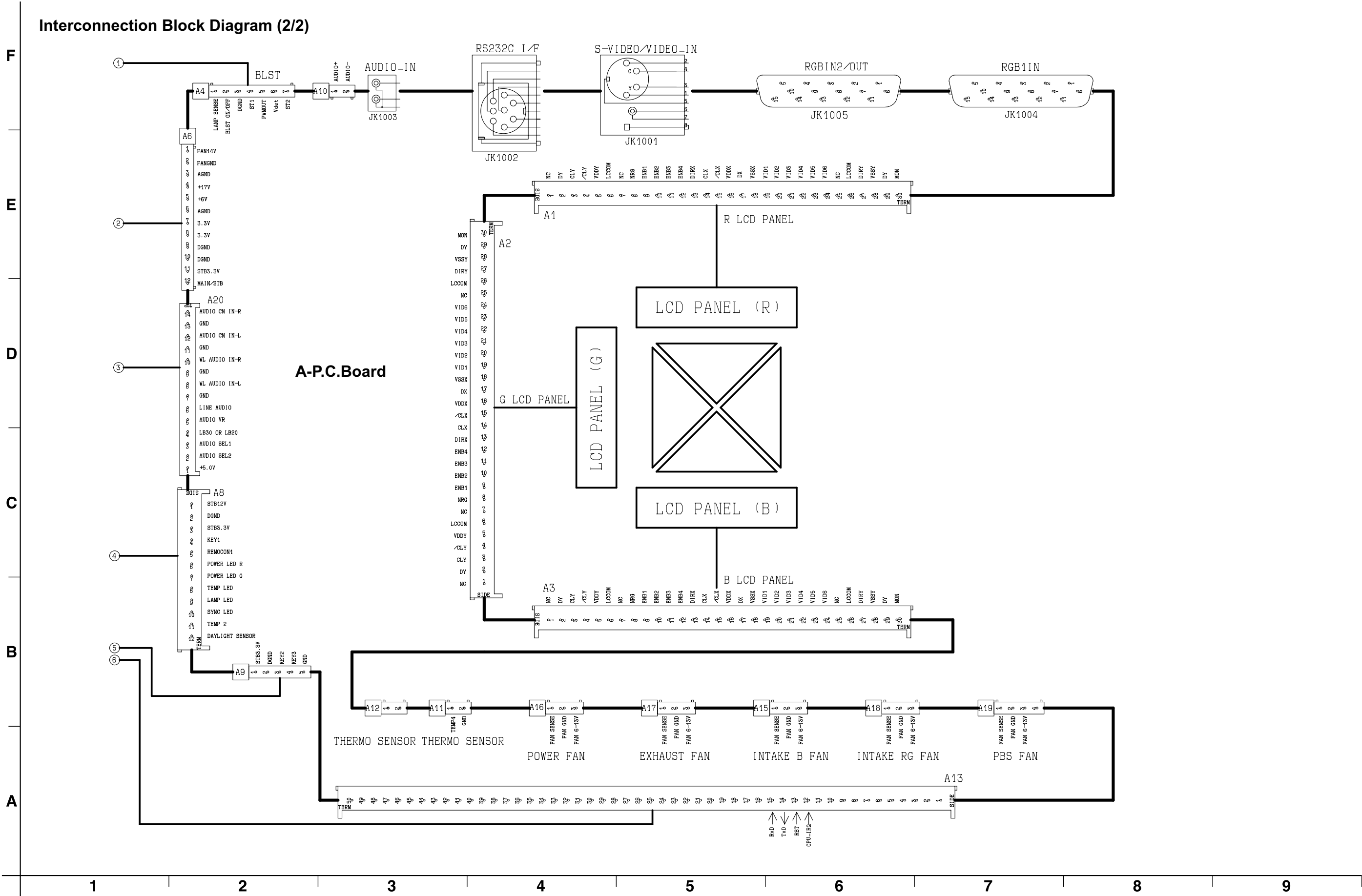
10 Interconnection Block Diagram

10.1. Interconnection Block Diagram (1/2)

Interconnection Block Diagram (1/2)

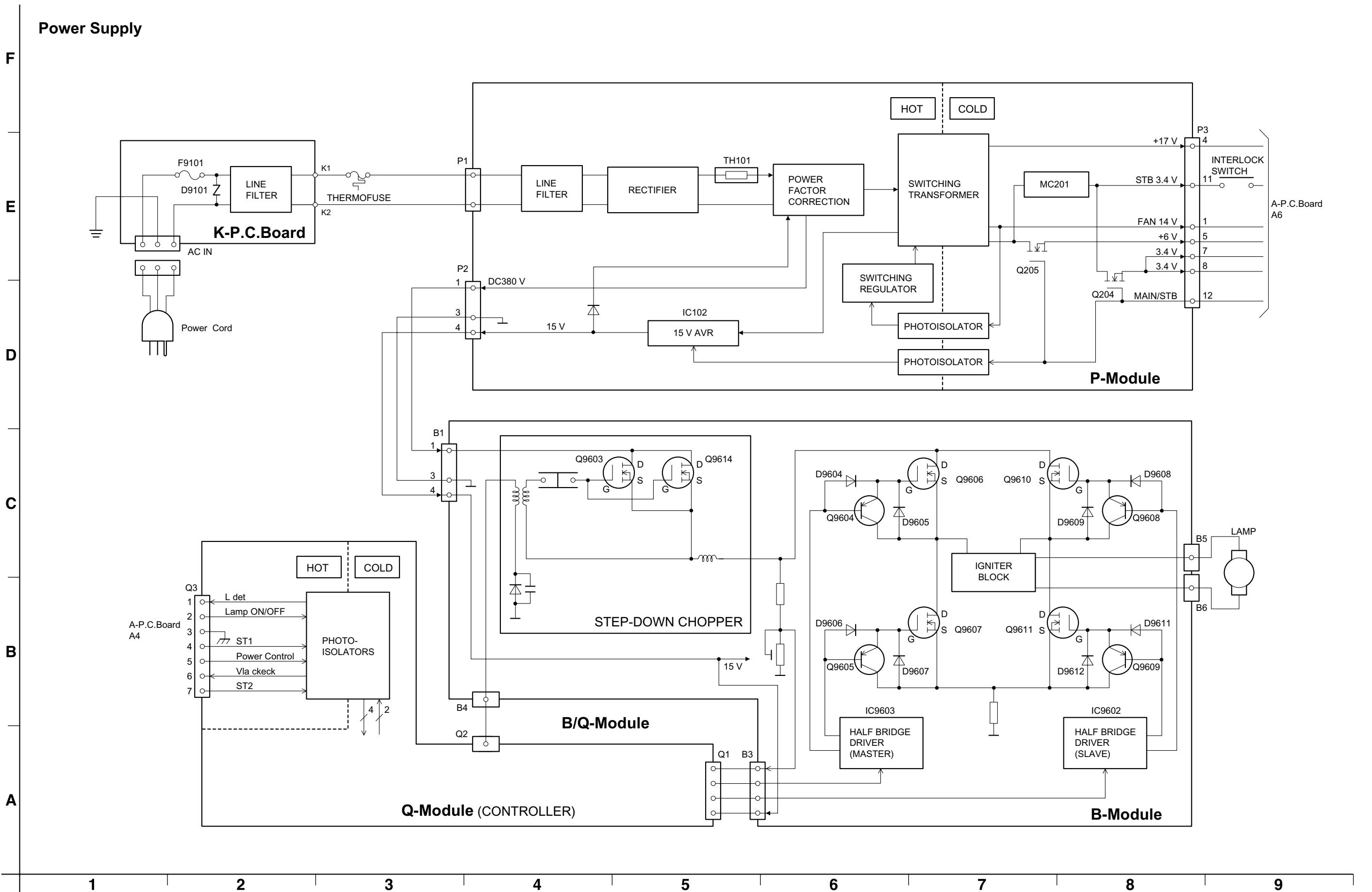


10.2. Interconnection Block Diagram (2/2)

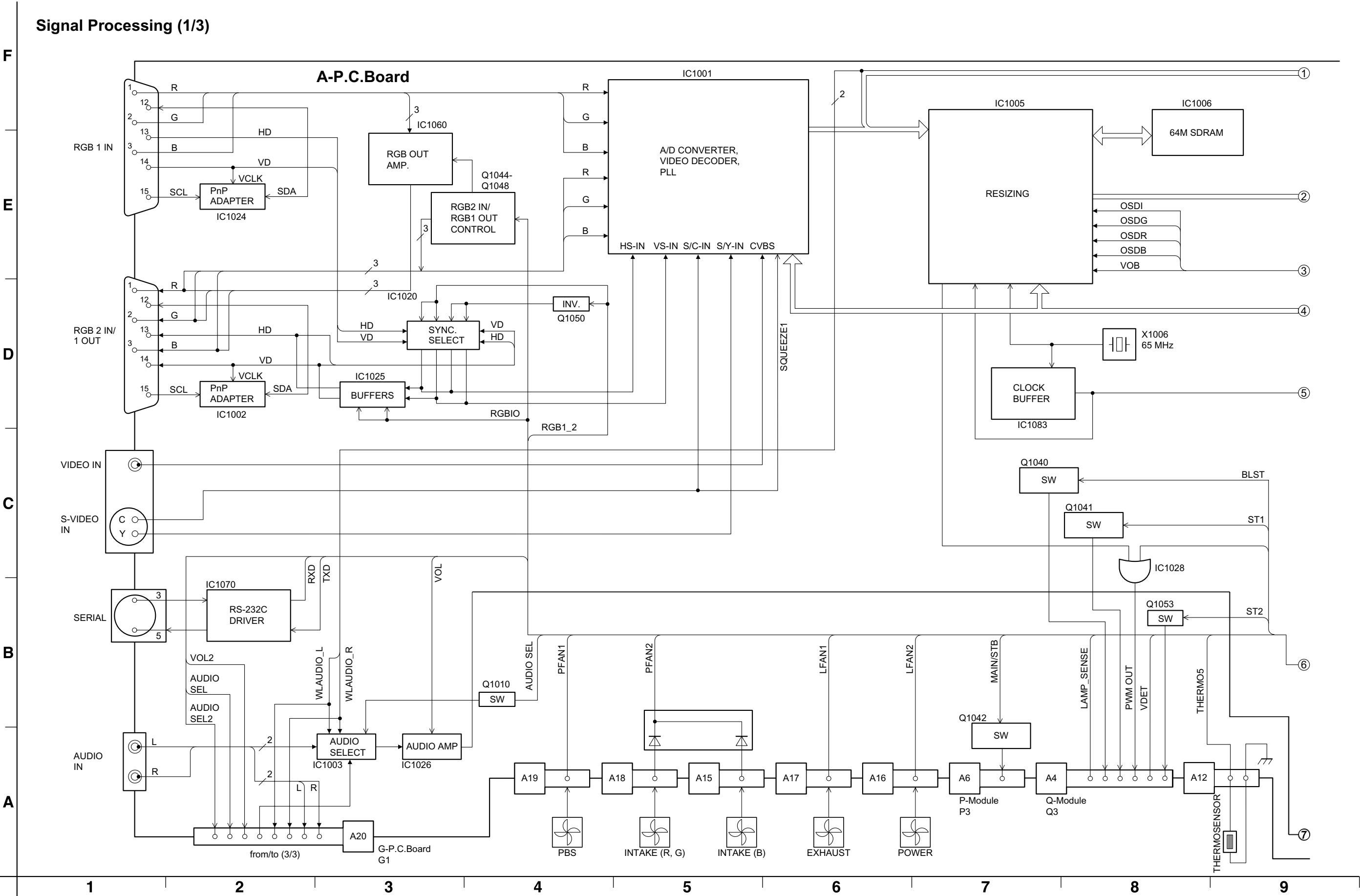


11 Block Diagram

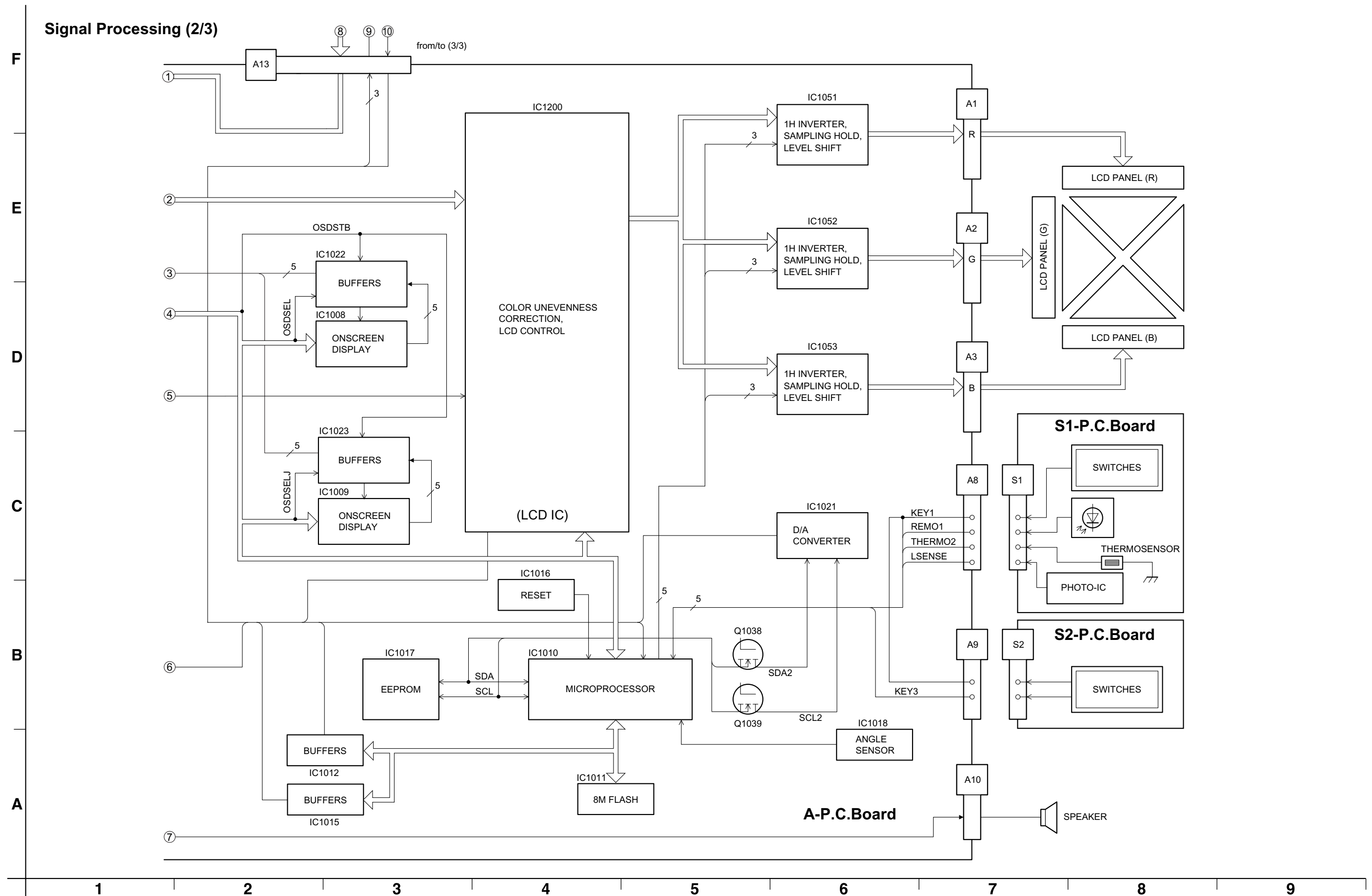
11.1. Power Supply



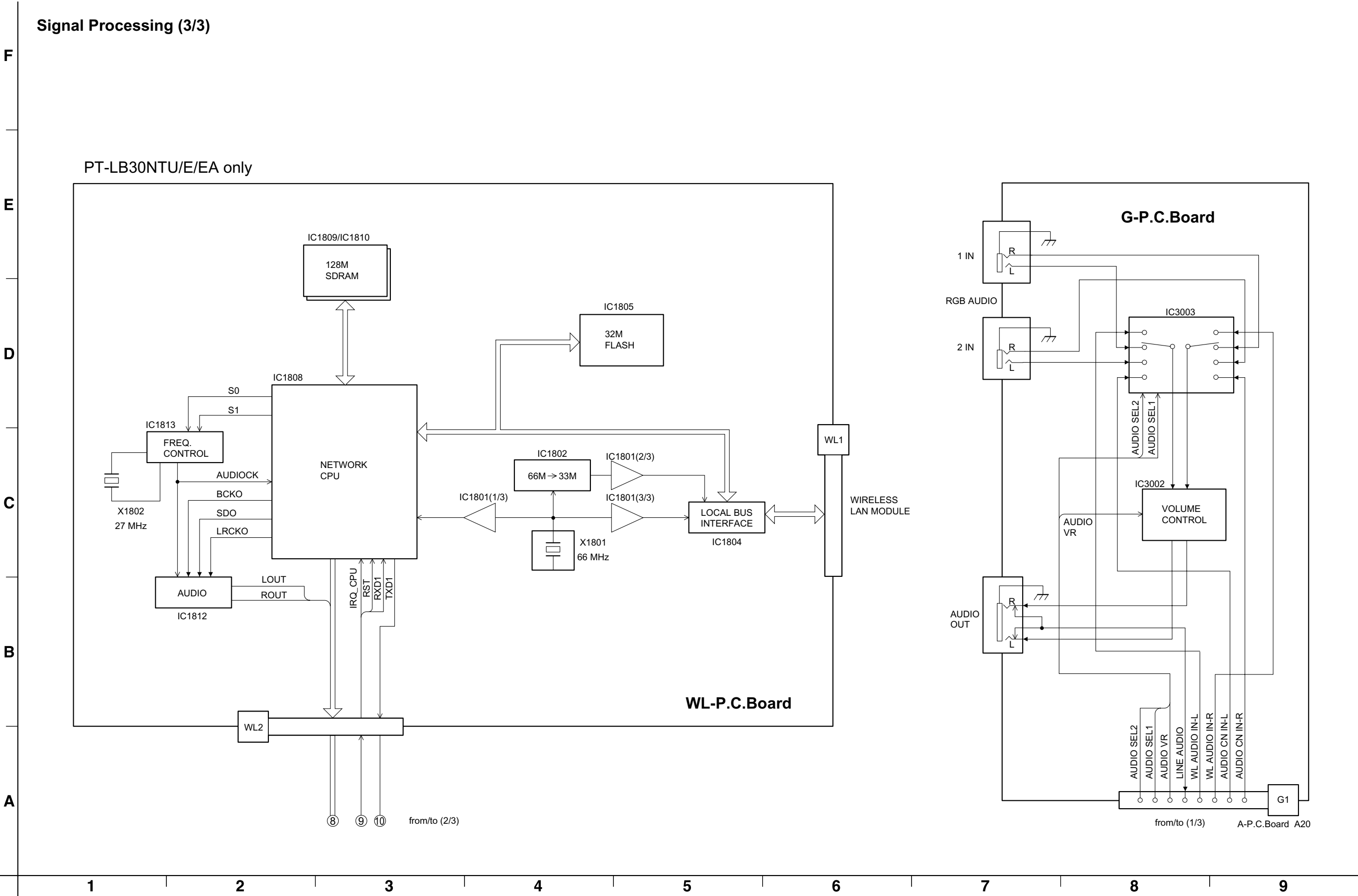
11.2. Signal Processing (1/3)



11.3. Signal Processing (2/3)



11.4. Signal Processing (3/3)



12 Schematic Diagram

Schematic Diagram for Model PT-LB30NTU/LB30U

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Schematic Diagram for Model PT-LB30NTE/EA, LB30E/EA

Important Safety Notice

Components identified by the international symbol  have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.

Notes:

1. Resistor

All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).

-  : Nonflammable
-  : Solid
-  : Wire Wound
-  : Metal Oxide
-  : Metal Film
-  : Fuse

2. Capacitor

-  : Temperature Compensation
-  : Polyester
-  : Metalized Polyester
-  : Polypropylene
-  : Electrolytic
-  : Bipolar
-  : Dipped Tantalum
-  : Z-Type

3. Coil

The unit of inductance is a H, unless otherwise noted.

4. Test Point

-  : Test Point

5. Voltage Measurement

The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.

6. Color code for the links between diagrams and circuit boards

From/To		To/From	Color code
Block diagram		Schematic diagram	Magenta
Schematic diagram		Schematic diagram	Green
Schematic diagram		Circuit boards	Yellow
Schematic diagram		Waveforms	Cyan (Light blue)

7. HOT and COLD indications

The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:

8. This schematic diagram is the latest at the time of printing and the subject to change without notice.

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow. Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

F



D

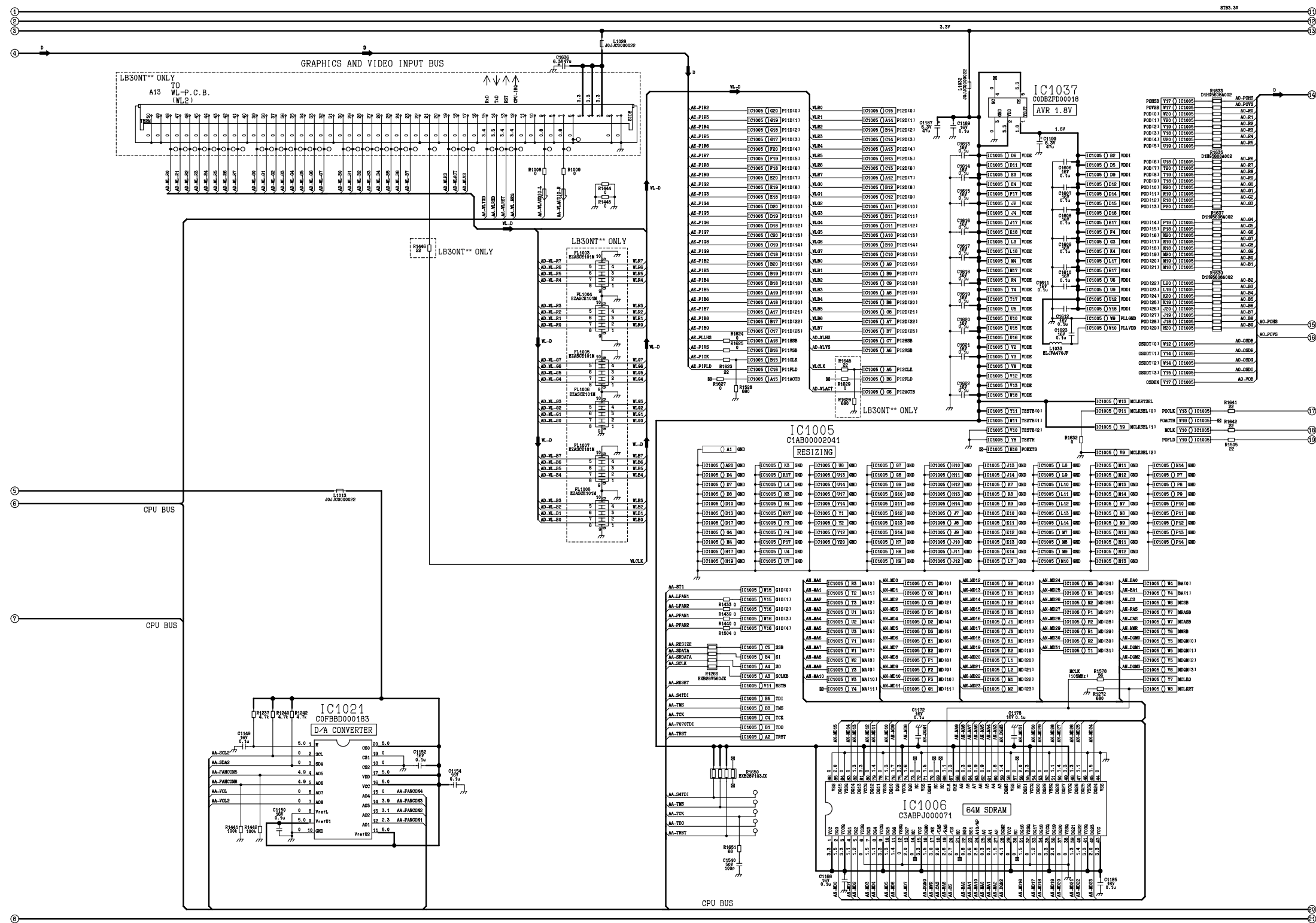
C

B

A

12.2. A-P.C.Board (2/4)

A-P.C.Board (2/4) TXANP01VKA1 (PT-LB30NTU/E/EA)
TXANP01PYYZ (PT-LB30U/E/EA)



12.3. A-P.C.Board (3/4)

F

E

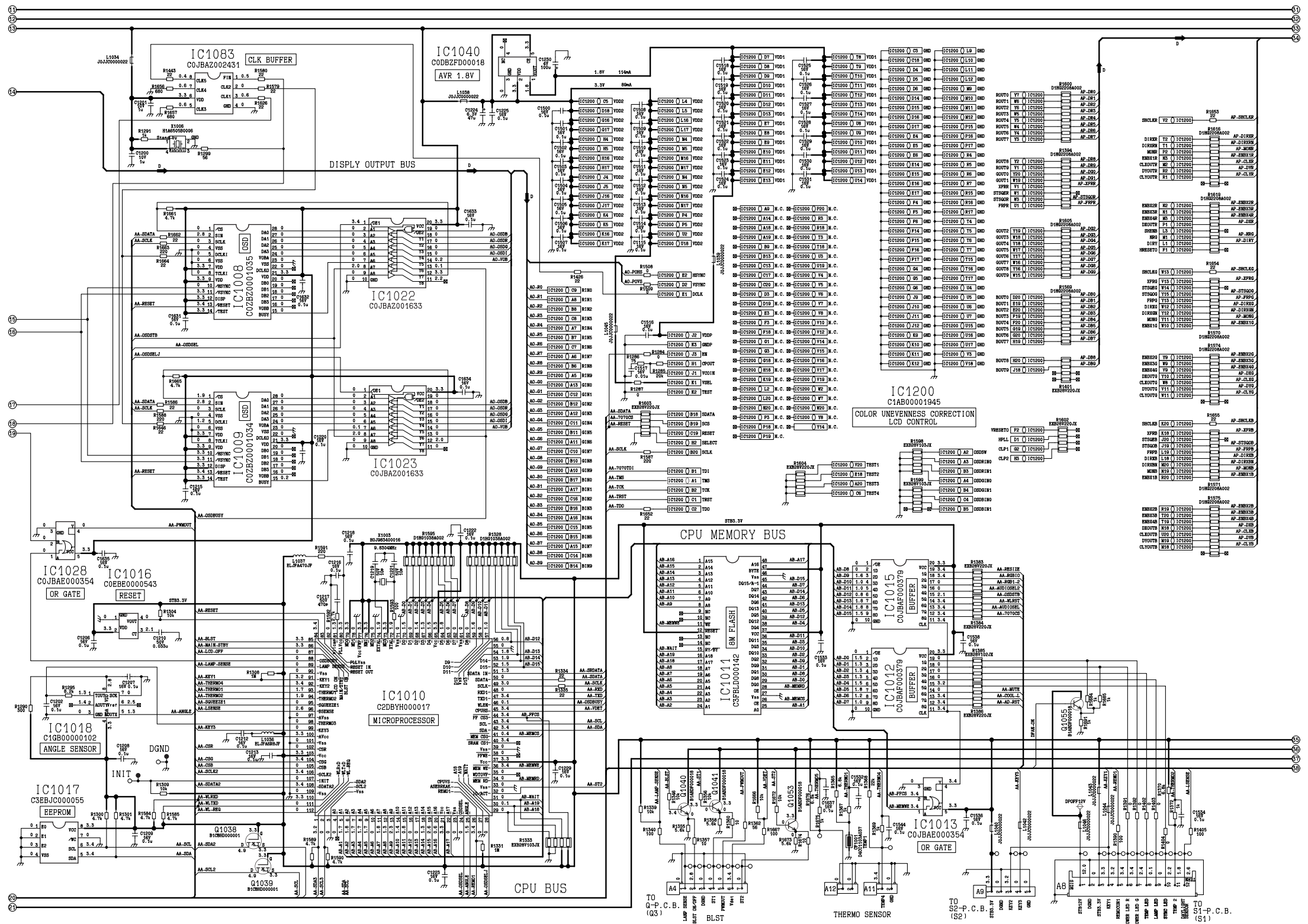
D

C

B

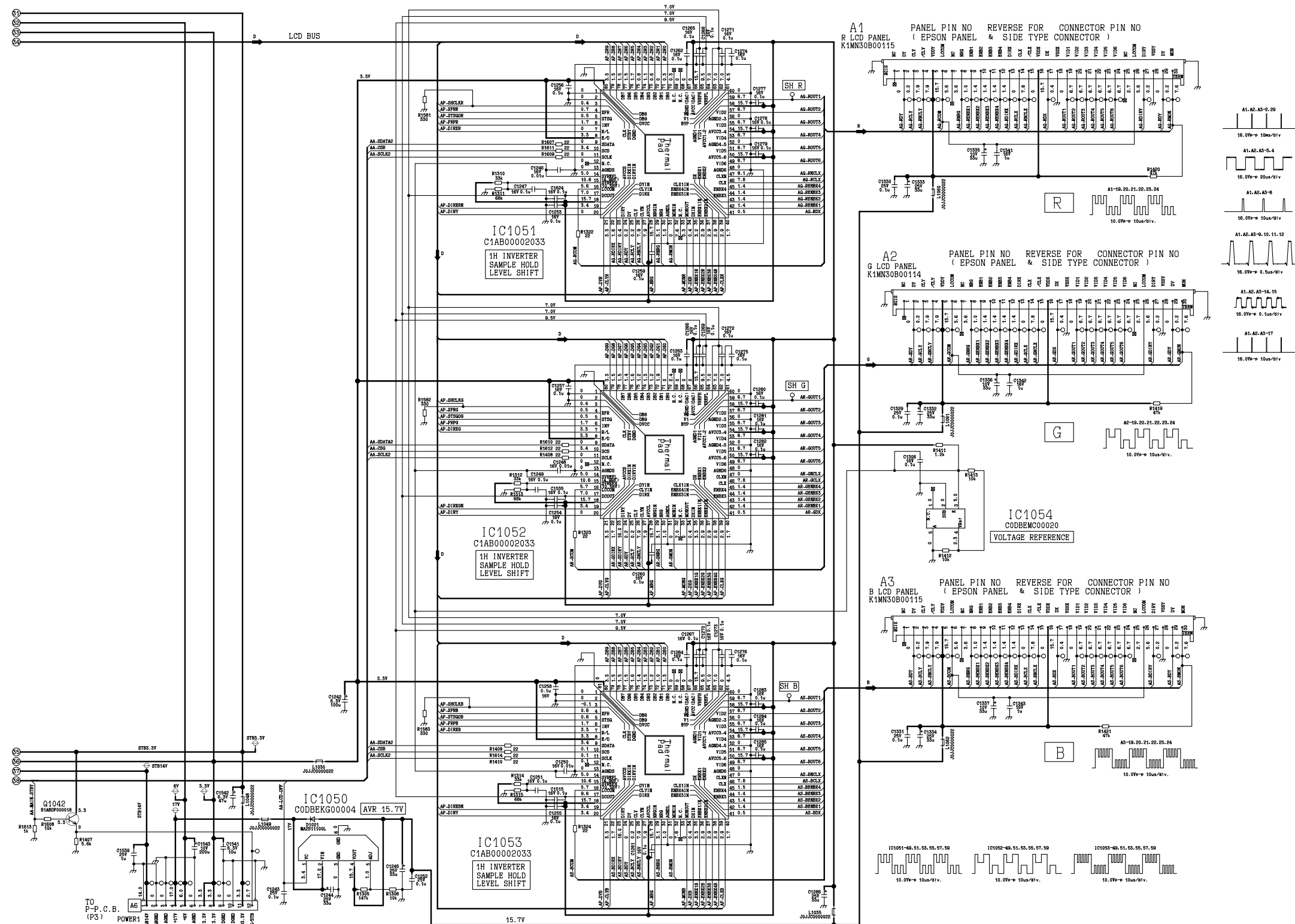
A

A-P.C.Board (3/4) TXANP01VKA1 (PT-LB30NTU/E/EA)
TXANP01PYYZ (PT-LB30U/E/EA)

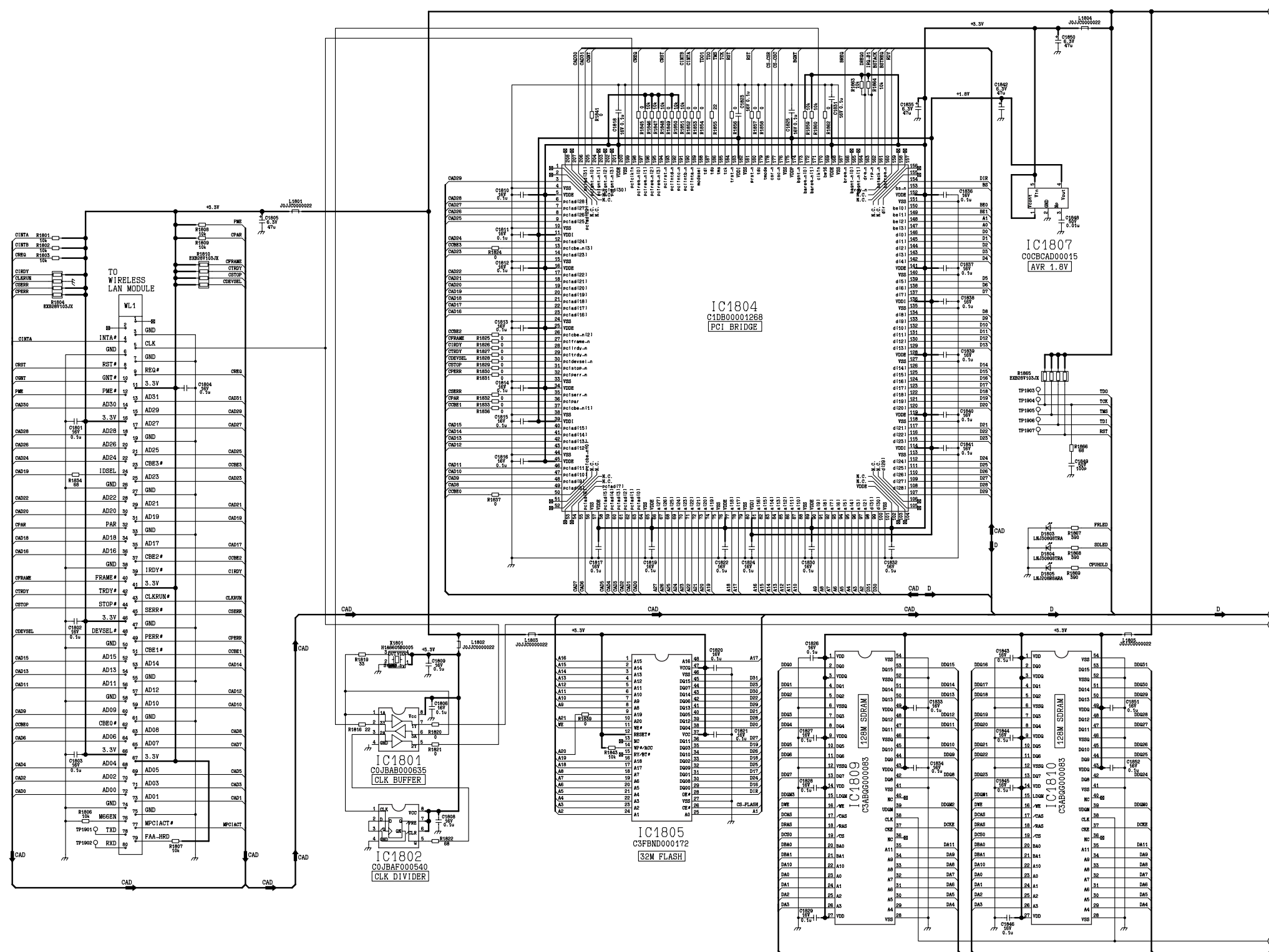


12.4. A-P.C.Board (4/4)

**A-P.C.Board (4/4) TXANP01VKA1 (PT-LB30NTU/E/EA)
TXANP01PYYZ (PT-LB30U/E/EA)**

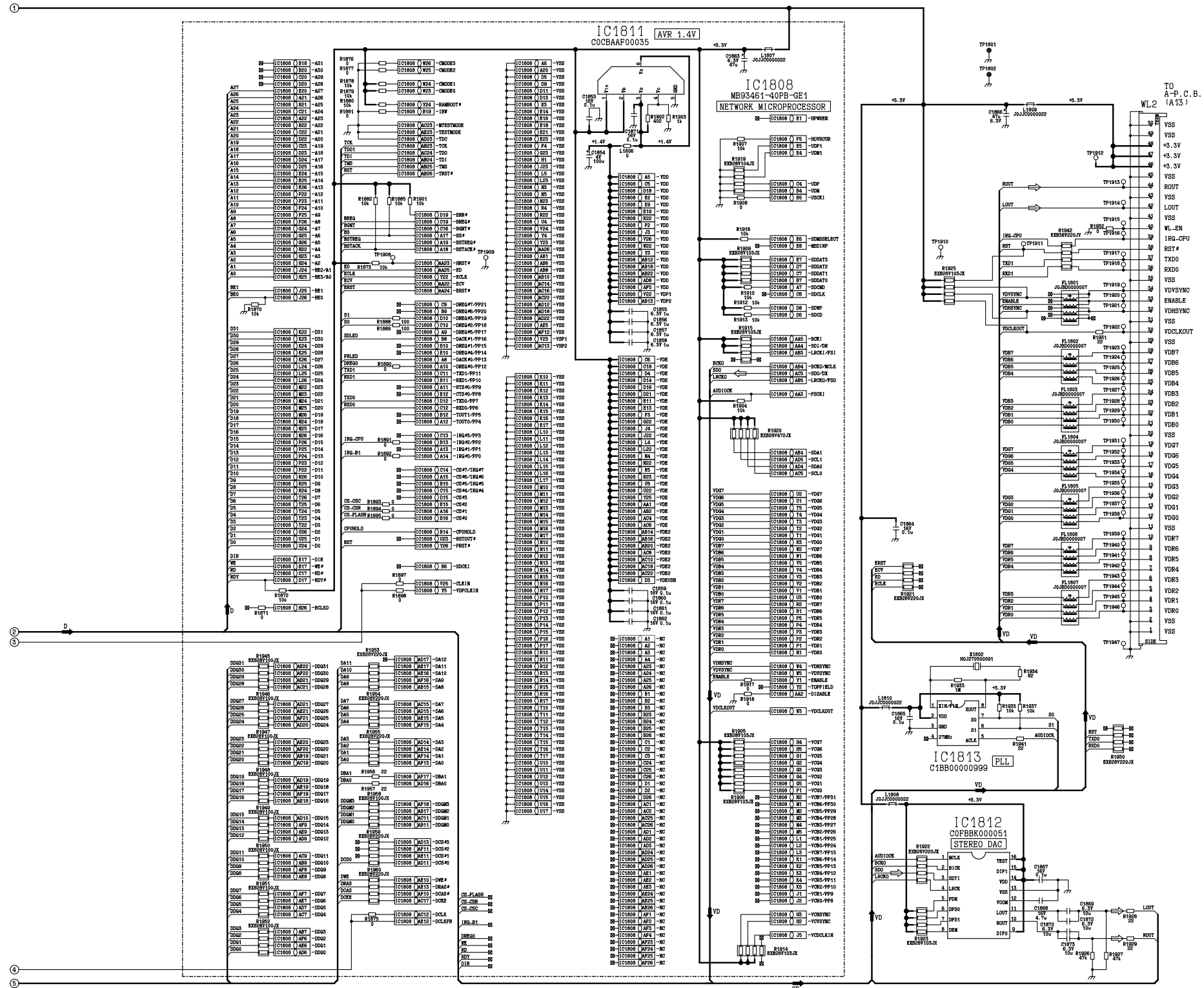


12.5. WL-P.C.Board (1/2)

WL-P.C.Board TNPA3595 (1/2) (PT-LB30NTU/E/EA)

12.6. WL-P.C.Board (2/2)

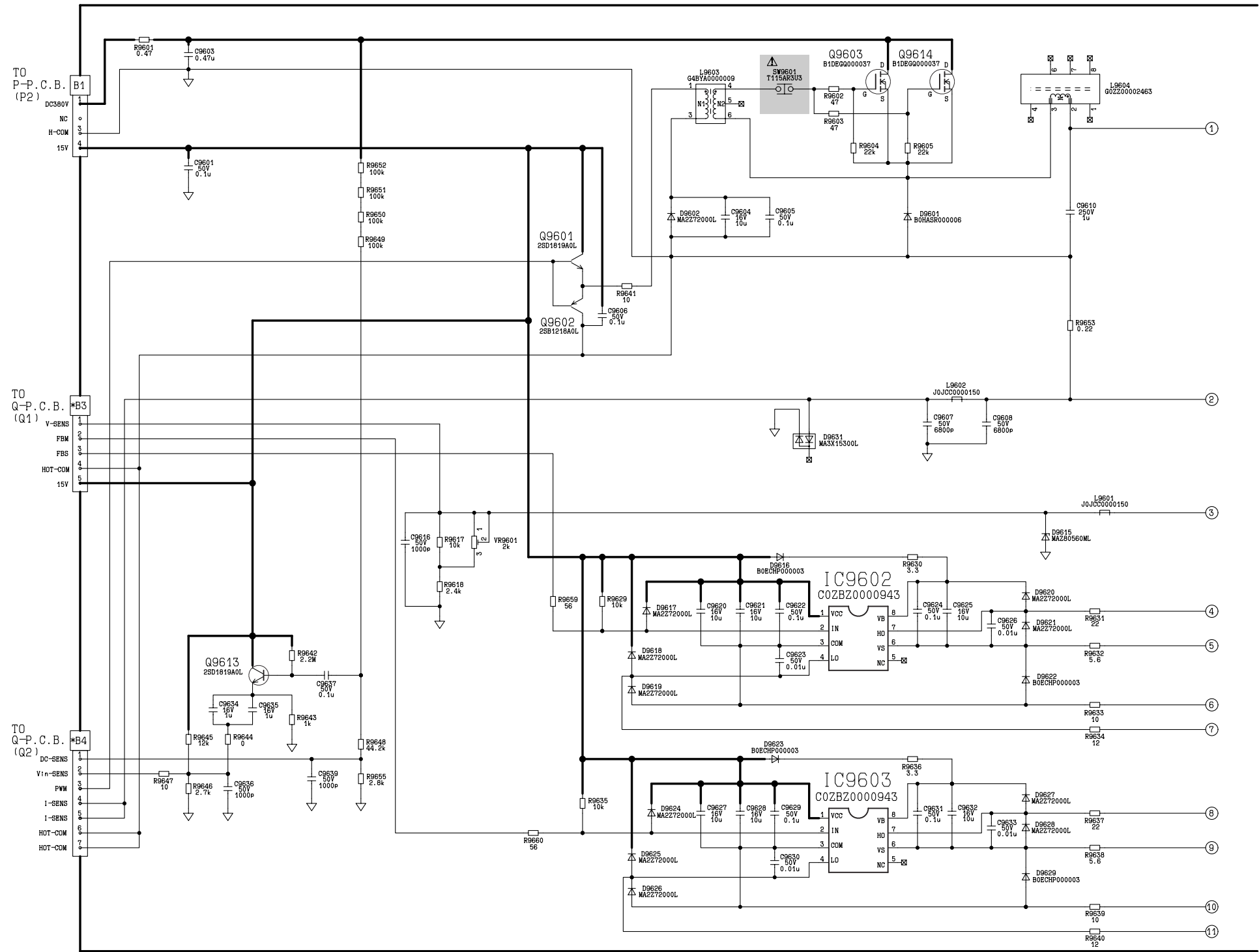
WL-P.C.Board TNPA3595 (2/2) (PT-LB30NTU/E/EA)



12.7. B-Module (1/2)

B-Module TXANP04VKA1 (1/2) Module Replacement

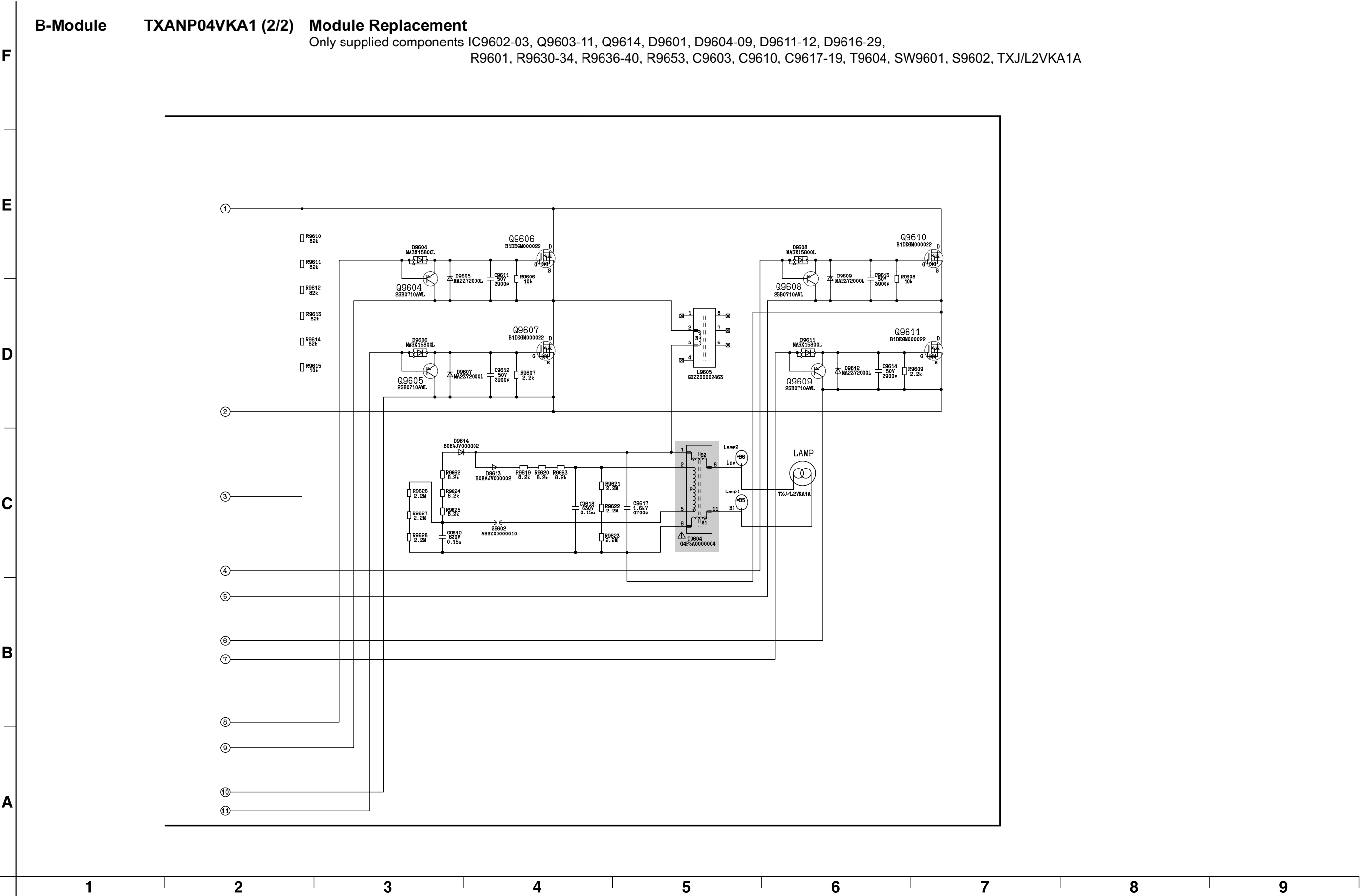
Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602, TXJ/L2VKA1A



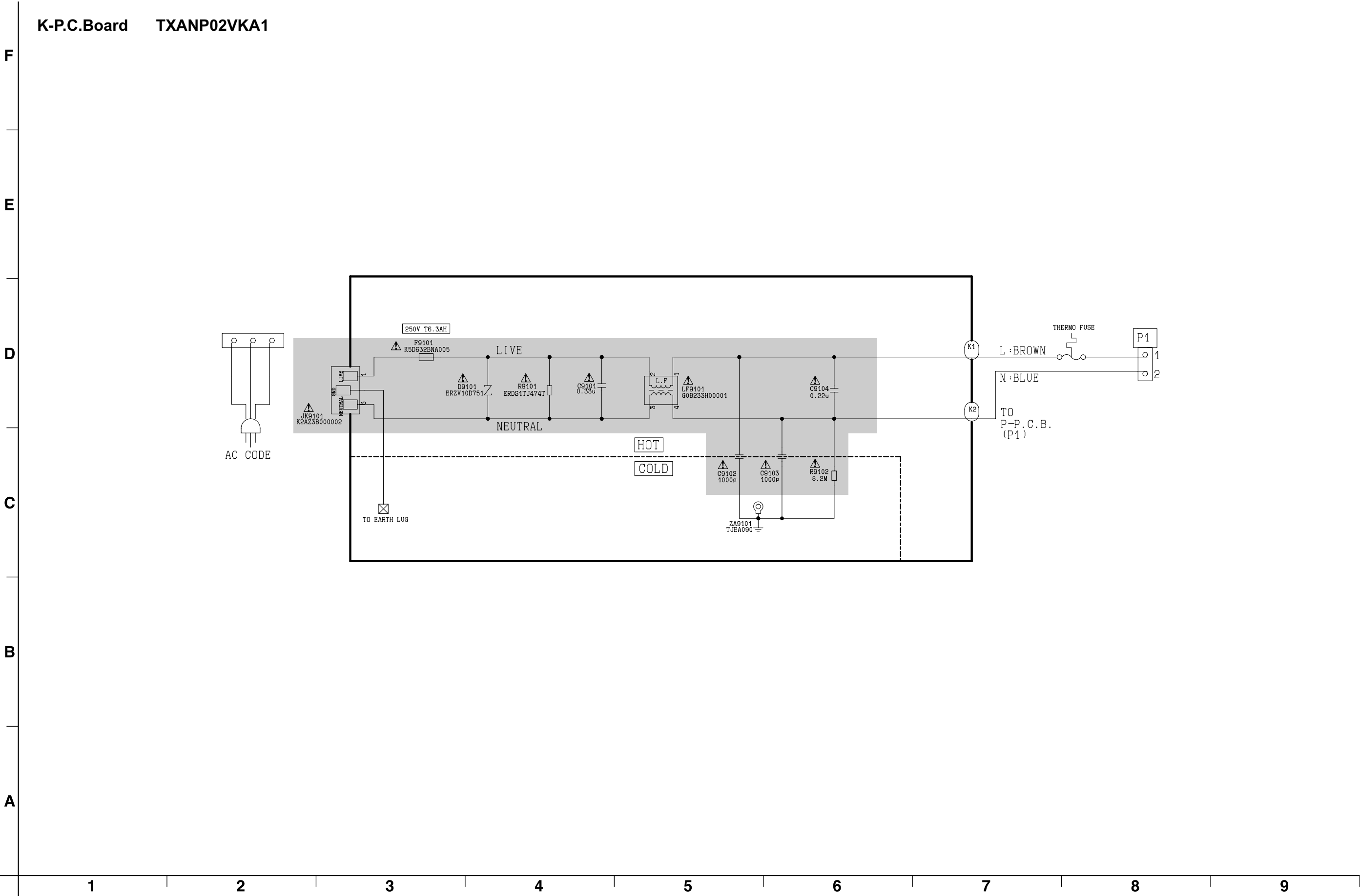
12.8. B-Module (2/2)

B-Module TXANP04VKA1 (2/2) Module Replacement

Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602, TXJ/L2VKA1A



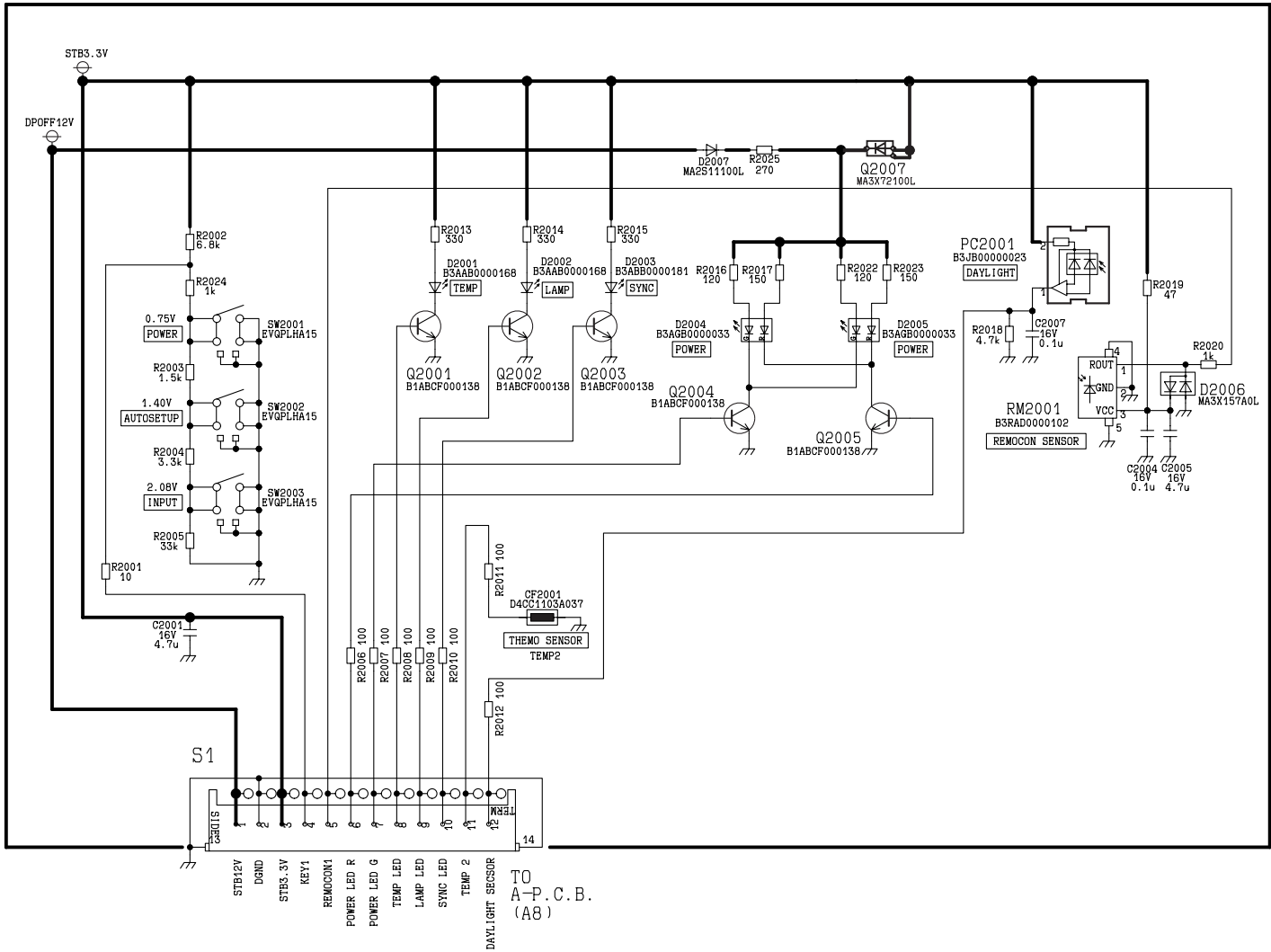
12.9. K-P.C.Board



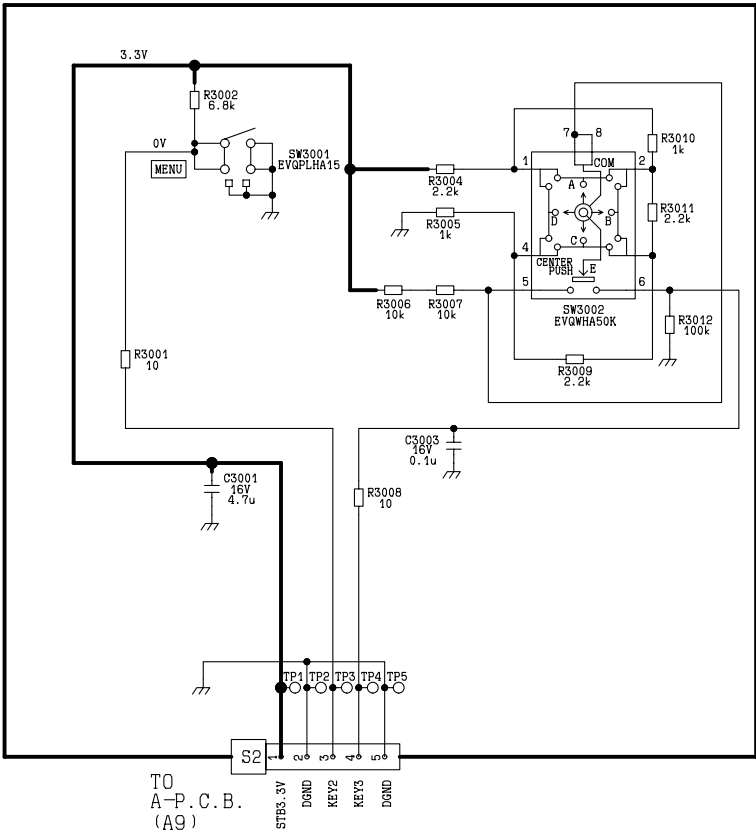
12.10. S1-P.C.Board, S2-P.C.Board

F
E
D
C
B
A

S1-P.C.Board TNPA3596

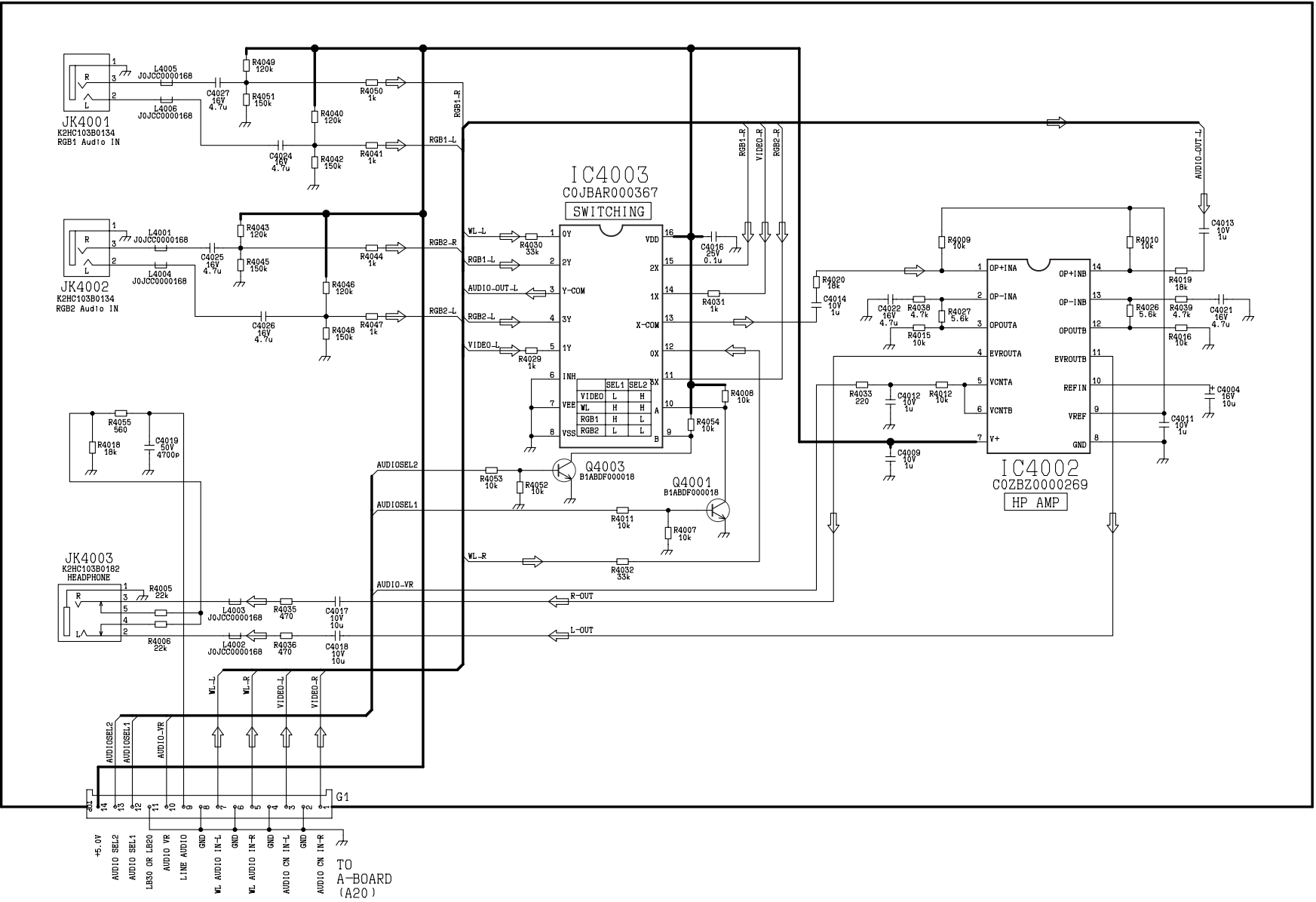


S2-P.C.Board TNPA3597



12.11. G-P.C.Board

G-P.C.Board TNPA3646



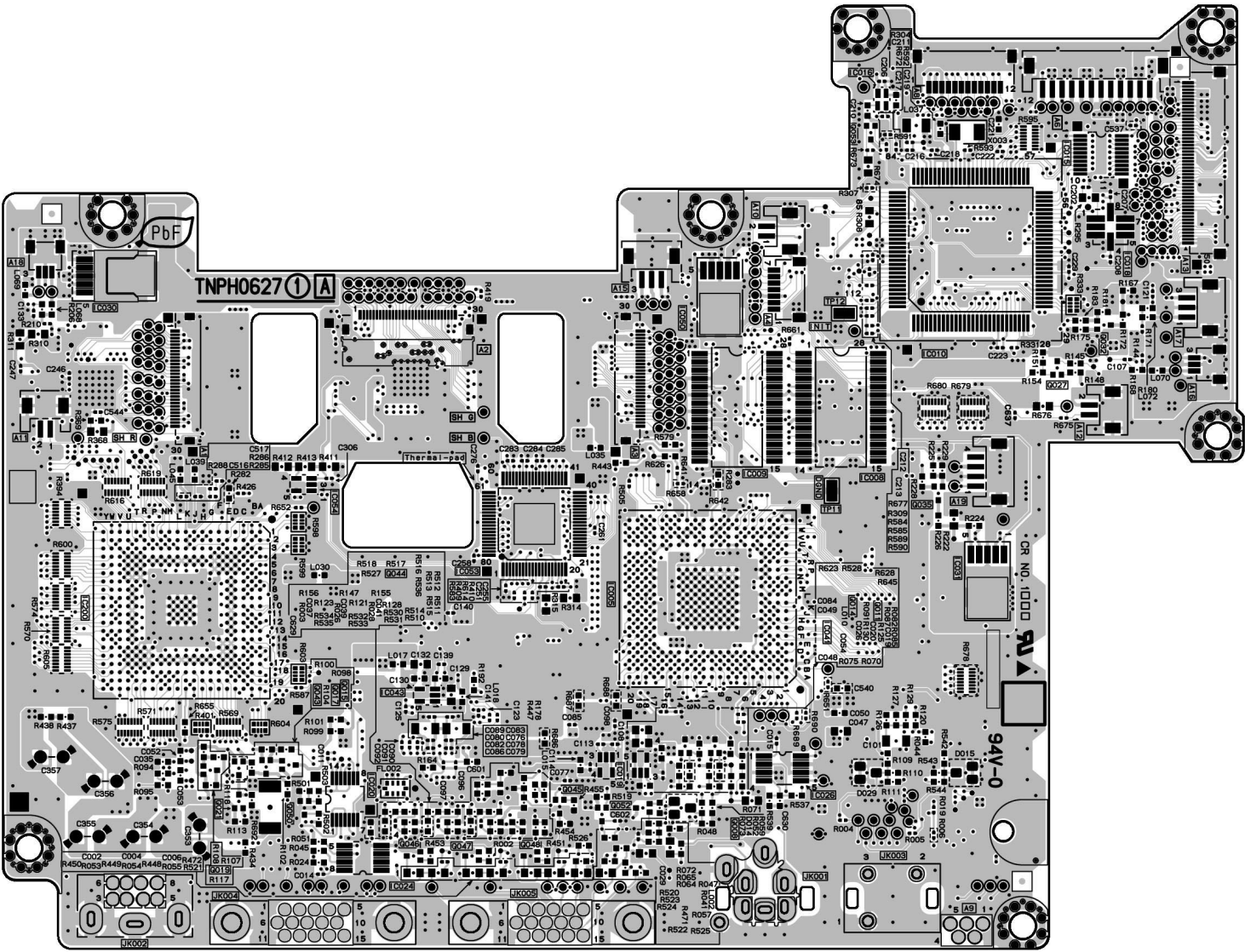
13 Circuit Boards

13.1. A-P.C.Board (Foil Side) / WL-P.C.Board (Foil Side/Component Side)

A-P.C.Board TXANP01VKA1 (PT-LB30NTU/E/EA)
(Foil Side) TXANP01PYYZ (PT-LB30U/E/EA)

A-P.C.Board (Foil Side)							
IC		TRANSISTOR		TP			
IC1005	B-3	IC1026	A-4	Q1008	A-3	Q1043	A-2
IC1008	C-4	IC1030	C-1	Q1011	B-4	Q1044	B-2
IC1009	C-3	IC1031	B-4	Q1014	B-4	Q1045	A-3
IC1010	C-4	IC1041	B-4	Q1015	A-2	Q1046	A-2
IC1015	D-5	IC1043	B-2	Q1017	A-2	Q1047	A-2
IC1016	D-4	IC1050	C-3	Q1019	A-1	Q1048	A-3
IC1018	C-5	IC1053	B-3	Q1021	A-1	Q1050	A-2
IC1019	A-3	IC1054	B-2	Q1027	C-5	Q1052	A-3
IC1020	A-2	IC1200	B-1	Q1032	C-5	Q1053	D-4
IC1024	A-2			Q1035	B-4		

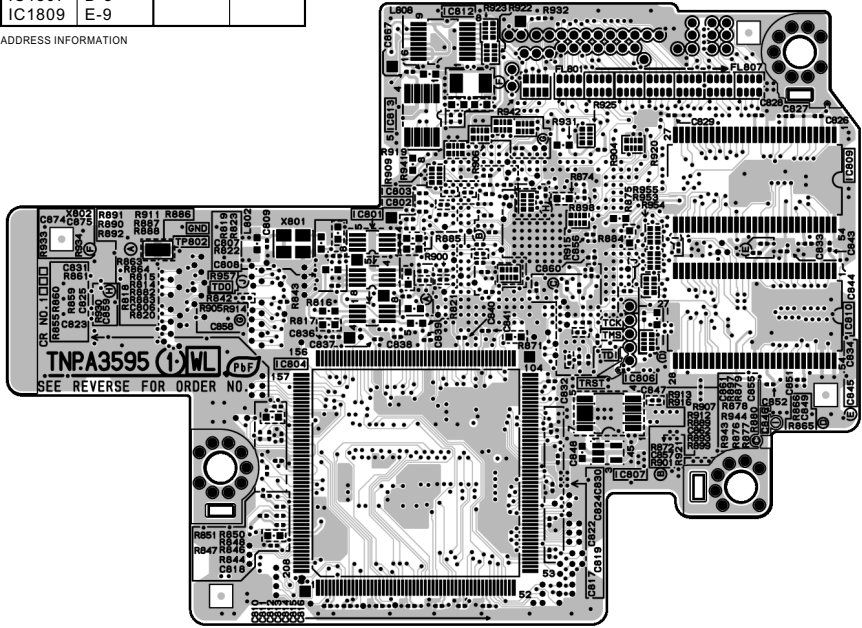
ADDRESS INFORMATION



WL-P.C.Board TNPA3595 (PT-LB30NTU/E/EA)
(Foil Side)

WL-P.C.Board (Foil Side)			
IC			
IC1801	E-7	IC1810	E-9
IC1802	E-7	IC1812	E-7
IC1804	D-7	IC1813	E-7
IC1807	D-8		
IC1809	E-9		

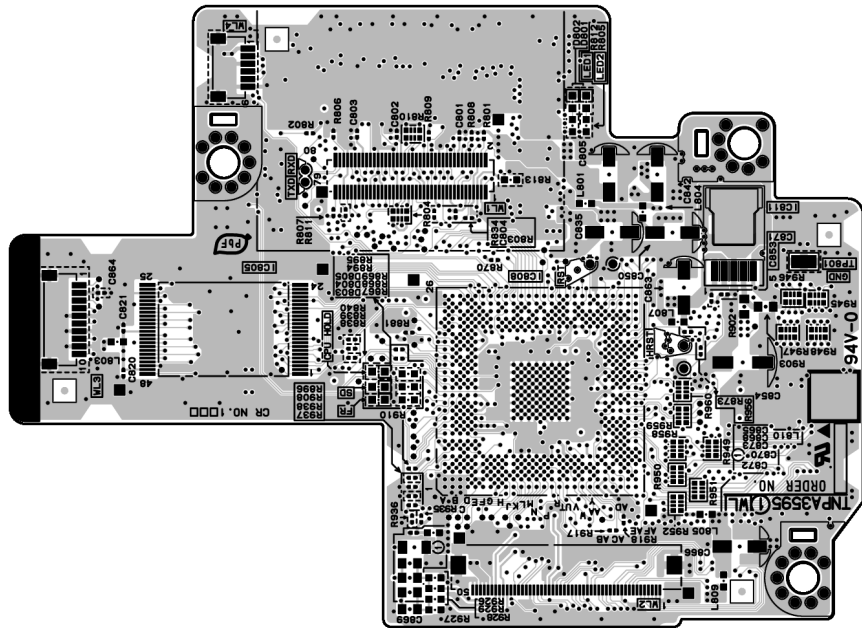
ADDRESS INFORMATION



WL-P.C.Board TNPA3595 (PT-LB30NTU/E/EA)
(Component Side)

WL-P.C.Board (Component Side)			
IC			
IC1805	B-7	IC1811	B-8
IC1808	B-8		

ADDRESS INFORMATION



13.2. A-P.C.Board (Component) , S1/G-P.C.Board (Foil Side/Component Side)

F

A-P.C.Board TXANP01VKA1 (PT-LB30NTU/E/EA)
(Component Side) TXANP01PYYZ (PT-LB30U/E/EA)

A-P.C.Board (Component Side)							
IC				TRANSISTOR			
IC1001	B-4	IC1028	C-3	Q1006	A-3	Q1041	C-3
IC1002	A-3	IC1029	C-1	Q1007	A-2	Q1042	D-1
IC1003	A-2	IC1032	C-1	Q1009	A-2	Q1055	D-2
IC1006	B-2	IC1037	B-2	Q1010	A-2		
IC1011	C-2	IC1040	B-5	Q1012	B-2		
IC1012	D-2	IC1042	B-3	Q1016	A-4		
IC1013	A-2	IC1051	C-5	Q1018	A-5		
IC1017	C-1	IC1052	C-4	Q1022	A-4		
IC1021	C-2	IC1060	A-3	Q1034	C-5		
IC1022	C-3	IC1070	A-5	Q1038	C-1		
IC1023	B-2	IC1072	A-2	Q1039	C-1		
IC1025	A-4	IC1083	C-3	Q1040	D-2		

ADDRESS INFORMATION

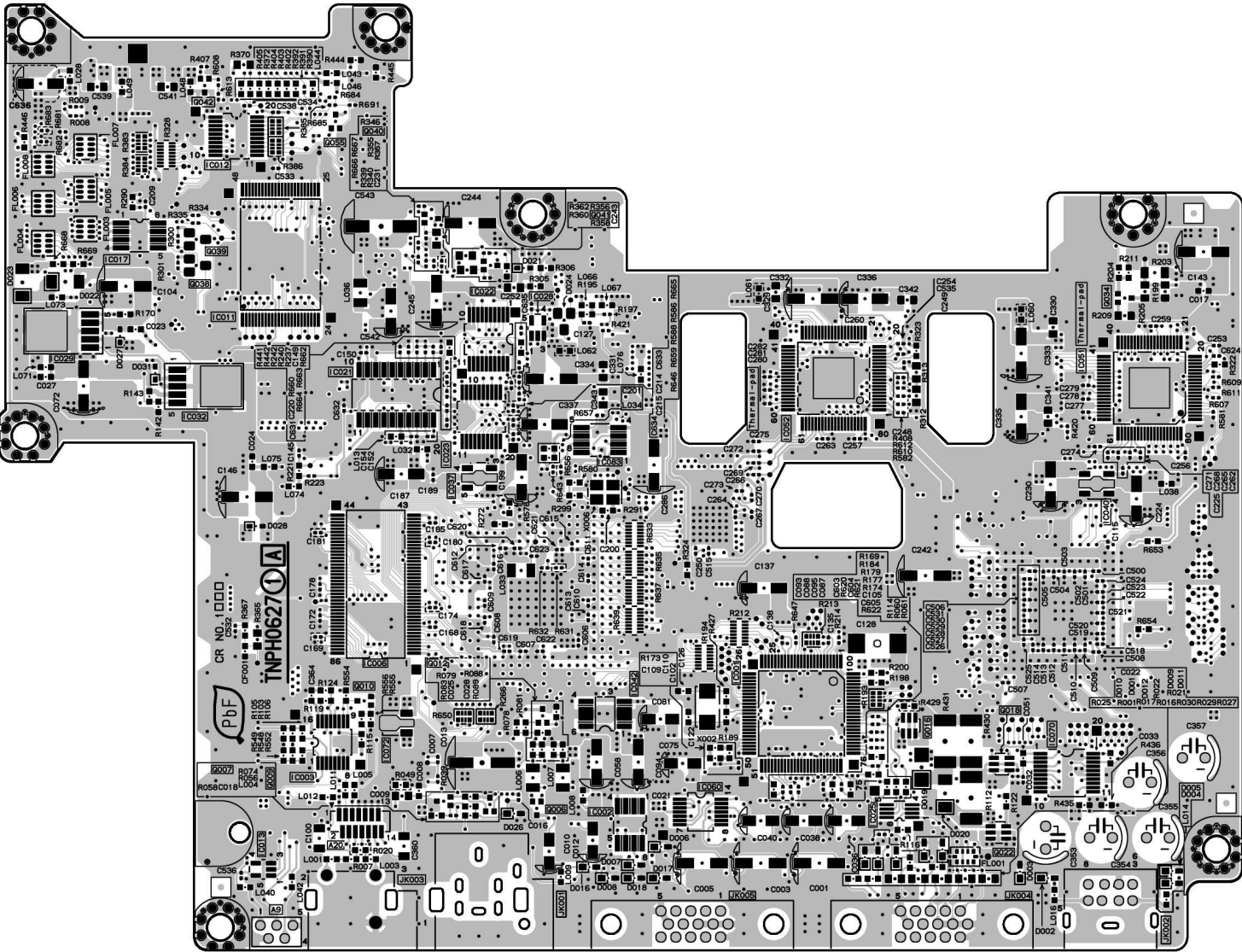
E

D

C

B

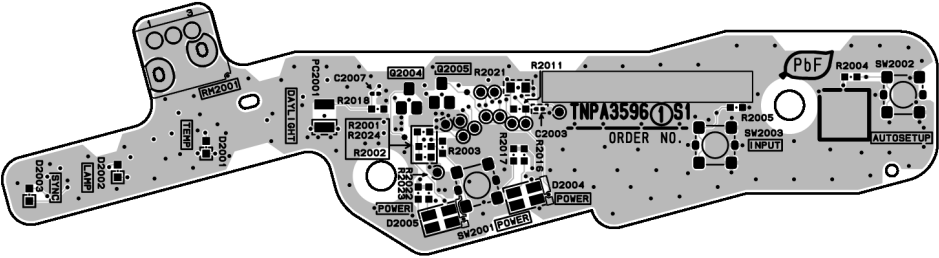
A



S1-P.C.Board TNPA3596
(Foil Side)

S1-P.C.Board (Foil Side)			
TRANSISTOR			
Q2004	E-7	Q2005	E-7

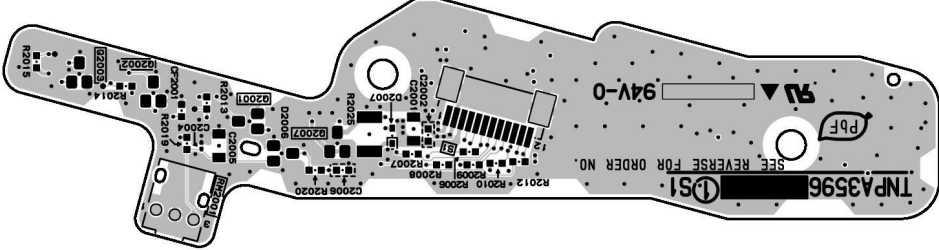
ADDRESS INFORMATION



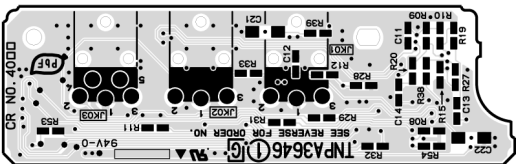
S1-P.C.Board TNPA3596
(Component Side)

S1-P.C.Board (Component Side)			
TRANSISTOR			
Q2001	D-7	Q2003	D-6
Q2002	D-6	Q2007	D-7

ADDRESS INFORMATION



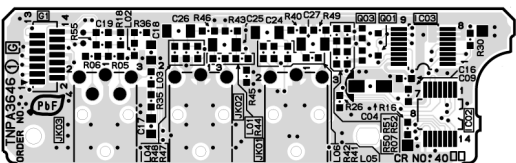
G-P.C.Board TNPA3646
(Foil Side)



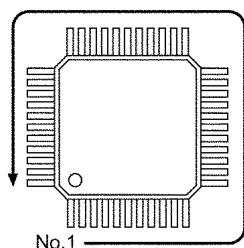
G-P.C.Board TNPA3646
(Component Side)

S1-P.C.Board (Component Side)			
TRANSISTOR			
IC4002	A-7	Q4001	A-7
IC4003	A-7	Q4003	A-7

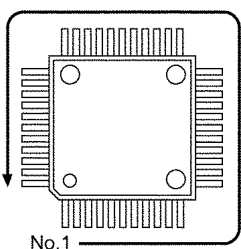
ADDRESS INFORMATION



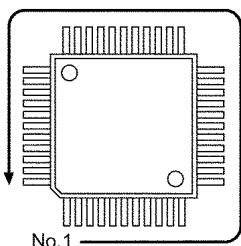
14 Terminal guide of ICs and transistors



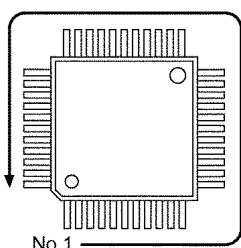
C1AB00002033 80 Pin



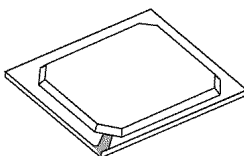
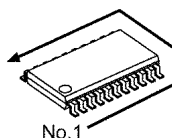
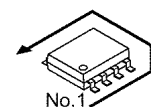
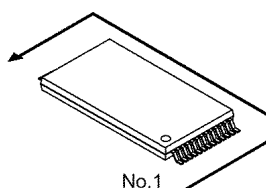
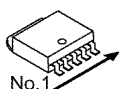
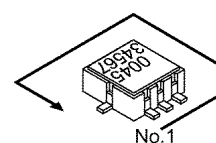
C1DB00001268 208 Pin



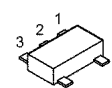
C2DBYH000017 112 Pin



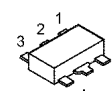
C1AB00002204 100 Pin

C1AB00002043
C1AB00001945
C2GBC0000205C0JBAF000379 20 Pin
C0ZBZ0001035 28 Pin
C0ZBZ0001034 28 Pin
C0JBAZ001876 14 Pin
C0FBBD000183 20 Pin
C0JBAZ001633 20 Pin
C3ABPJ000071 86 Pin
C0JBAR000370 16 Pin
C0ABZA000044 14 Pin
C1CB00001750 20 Pin
C0FB BK000051 16 Pin
C3ABQG000083 54 PinC1BB00000840 8 Pin
C3EBCC000071 8 Pin
C3EBJC000055 8 Pin
C0JBAZ002431 8 Pin
C0JBAZ002222 8 Pin
C1BB00000974 8 Pin
C0JBAB000635 8 Pin
C0JBAF000540 8 PinTVRN381 48 Pin
(C3FB LD000142)
TVRN382 48 Pin
(C3FB ND000172)C0DBEKG00004 5 Pin
C0DBEZE00006 5 Pin
C0CBAAF00035 5 Pin

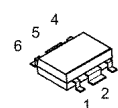
C1GB00000084 8 Pin



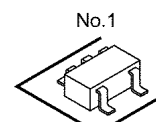
C0CBCAD00015 5 Pin



C0DBZFD00018 5 Pin



C0DBZGF00002 6 Pin

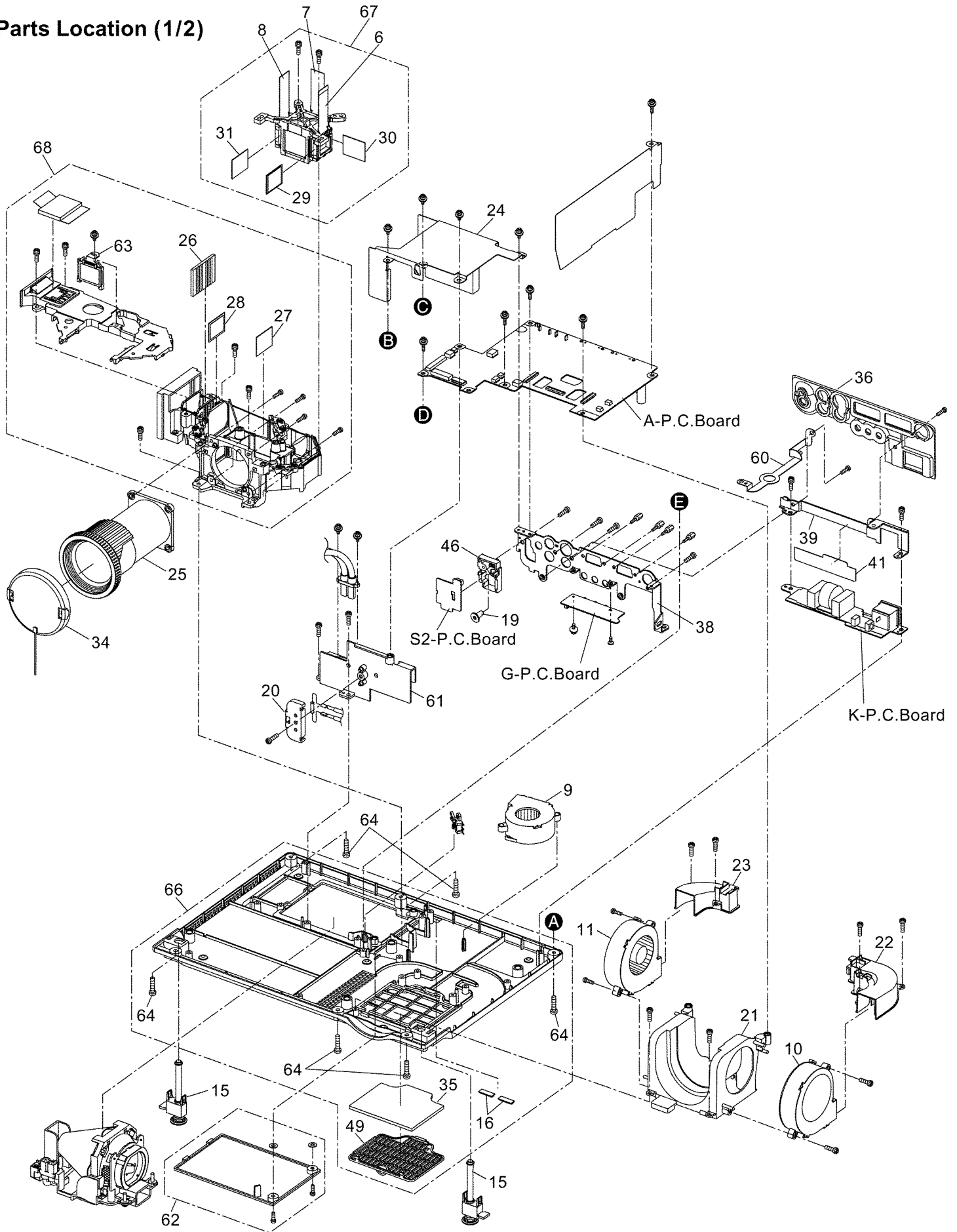
C0JBAE000354 5 Pin
C0CBCAC00096 5 Pin

AN78L05M 3 Pin

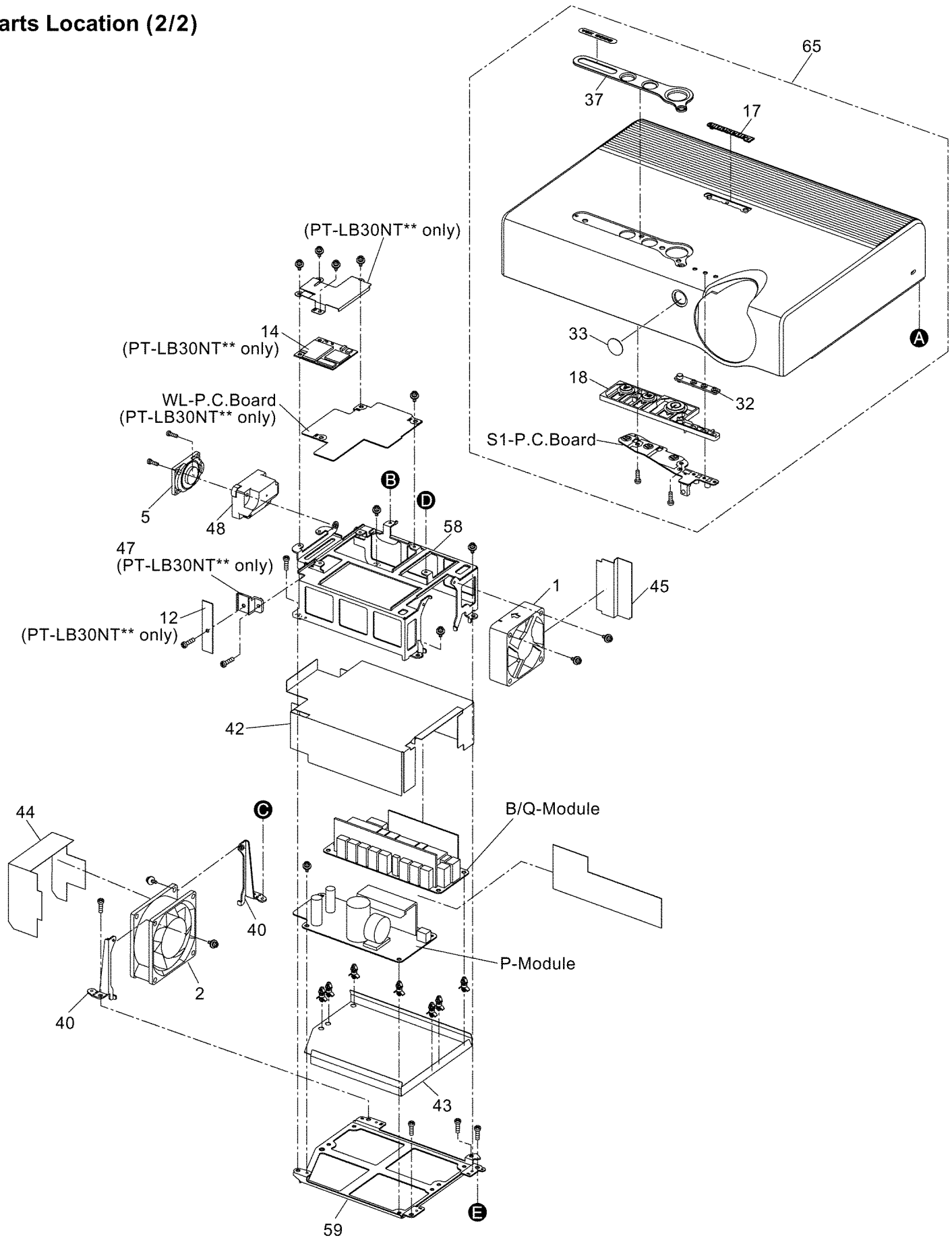
B1ABDF000018
B1ADCE000013

15 Exploded Views

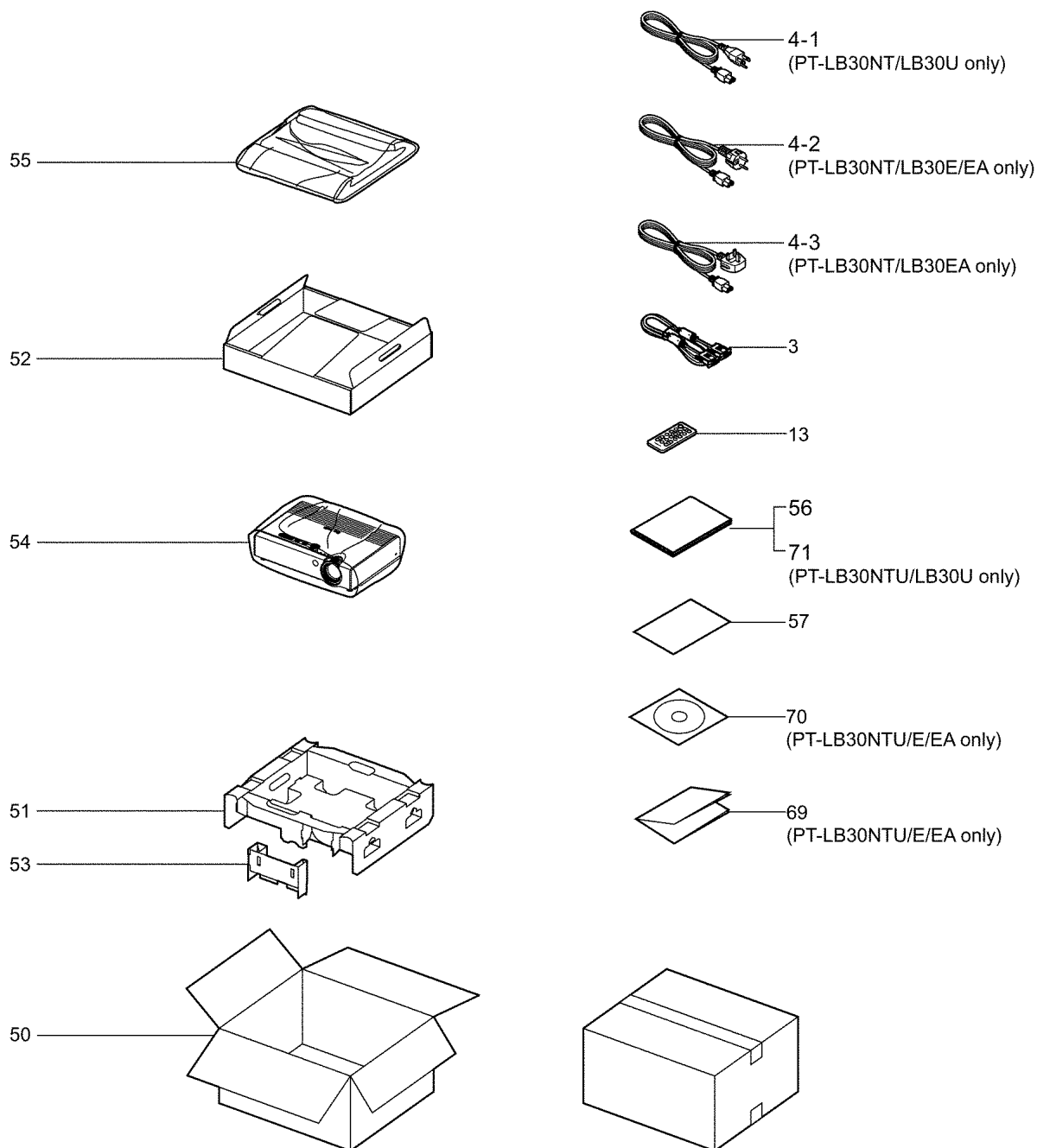
Parts Location (1/2)



Parts Location (2/2)



Packing Parts



16 Replacement Parts List

Important Safety Notice

Components identified by the International symbol  have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE	ALLOWANCE
C : Carbon	F : - 1 %
F : Fuse	G : - 2 %
M : Metal Oxide	J : - 5 %
Metal Film	K : -10%
S : Solid	M : -20%
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE	ALLOWANCE
C : Ceramic	C : -0.25 pF
E : Electrolytic	D : -0.5 pF
P : Polyester	F : - 1 pF
PP : Polypropylene	J : - 5 %
S : Polystyrol	K : -10 %
T : Tantalum	L : -15 %
	M : -20 %
	P : +100 %, -0 %
	Z : +80 %, -20 %

Notes:

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
[MECHANICAL PARTS]			
	D4CDH5030003	THERMISTER	
1	FB60DN4WB506	POWER FAN	
2	FB70EK4WB402	VENTILATION FAN	
	J0KG00000036	CORE	
3	K1HA15DA0002	VGA CABLE	
4-1	K2CG3DR00006	POWER CORD	 PT-LB30NTU
4-2	K2CM3DR00002	POWER CORD (EUROPE)	 PT-LB30NTE/EA, PT-LB30E/EA
4-3	K2CT3DR00005	POWER CORD (U.K)	 PT-LB30NTEA, PT-LB30EA
5	L0AA04C00006	SPEAKER	
6	L5BDAXQ00224	LIQUID CRYSTAL DISPLAY(R)	
7	L5BDAXQ00225	LIQUID CRYSTAL DISPLAY(G)	
8	L5BDAXQ00226	LIQUID CRYSTAL DISPLAY(B)	
9	L6FCJDAH0001	PBS FAN	
10	L6FCLDCH0002	SIROCCO FAN (GR)	
11	L6FCLDCH0003	SIROCCO FAN (B)	
12	N1JB0LB00001	ANTENNA	 PT-LB30NTU/E/EA
13	N2QADC000008	REMOTE CONTROLLER	
14	N5HZZ0000033	LAN MODULE	 PT-LB30NTU/E/EA
15	TBLB0049	ADJUST LEG	
16	TBLG3076	RUBBER LEG	
17	TBMA150	PANASONIC BADGE	
	TBMA166	WIRELESS LOGO BADGE	PT-LB30NTU/E/EA
	TBMA167	MODEL NAME LOGO BADGE	PT-LB30U/E/EA
	TBMF906	MODEL NAME PLATE	PT-LB30NTU
	TBMF907	MODEL NAME PLATE	PT-LB30NTE/EA
	TBMF909	MODEL NAME PLATE	PT-LB30U
	TBMF910	MODEL NAME PLATE	PT-LB30E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
	TBMF912	MODEL NO. LABEL	PT-LB30NTU
	TBMF913	MODEL NO. LABEL	PT-LB30NTE
	TBMF914	MODEL NO. LABEL	PT-LB30NTEA
	TBMF915	MODEL NO. LABEL	PT-LB30U
	TBMF916	MODEL NO. LABEL	PT-LB30E
	TBMF917	MODEL NO. LABEL	PT-LB30EA
	TBMG047	MODEL NO. LABEL	PT-LB30EA
18	TBXA38202	CONTROL BUTTON	
19	TBXA38301-1	CURSOR BUTTON	
20	TEEC5120	TEMP FUSE METAL	
21	TEEC5190	DUCT 1	
22	TEEC5191	DUCT 2	
23	TEEC5192	DUCT 3	
24	TENC5312	LAMP HOUSE	
	TEWA531	SHIELD GASKET	
	TEWA532	SHIELD GASKET	
	TEWA533	SPACER	
	THEC084N	SCREW	
25	TKGF0120	LENS	
26	TKGP5264	PBS	
27	TKGP5265	POLARIZING PLATE/ IN(R)	
28	TKGP5267	POLARIZING PLATE/ IN(B)	
29	TKGP5268	POLARIZING PLATE/ OUT(R)	
30	TKGP5269	POLARIZING PLATE/ OUT(G)	
31	TKGP5270	POLARIZING PLATE/ OUT(B)	
32	TKKC5167	LED PLATE	
33	TKKC5199	REMOTE CONTROL RECEIVER	
34	TKKL5332	LENS COVER	
35	TKNE057	FILTER	
36	TKPA95701	TERMINAL COVER	
37	TKPA95801	BUTTON DECORATION BOARD	
38	TKZF5038	TERMINAL METAL	
39	TKZF5039	AC INLET METAL	
40	TKZJ5061	VENTILATION FAN METAL	
	TMKG389	FAN SPONGE	
	TMKG422	SPACER	

Ref. No.	Part No.	Part Name & Description	Remarks
	TMKG580	VENTILATION FAN CEILING	
	TMKG590	BALLAST SPONG	
	TMKX100	WASHER	
	TMKX511-1	INSULATION SHEET (DUCT)	
	TMKX745	TAPE 1 (UPPER COVER)	
	TMKX746	TAPE 2 (UPPER COVER)	
41	TMKX877	INSULATION SHEET (K-PCB)	
42	TMKX878	INSULATION SHEET (UPPER)	
43	TMKX879	INSULATION SHEET (BOTTOM)	
44	TMKX880-1	VENTILATION FAN COVER	
45	TMKX881	POWER FAN COVER	
	TMKX882	GUIDE PLATE	
	TMKX883	DECORATION BOARD TAPE	
	TMKX885	TERMINAL SHIELD SHEET	
	TMKX917	POWER FAN COVER	
	TMKX929	VENTILATION SHIELD SHEET	
	TMKX930	WIRE LEAD COVER	
	TMME180	SPACER	
46	TMXE034-2	HOLDER (S-PCB)	
47	TMXE042	ANTENNA INSTALL METAL	PT-LB30NTU/E/EA
48	TMZK5022	SPEAKER BOX	
49	TMZX5053	FILTER COVER	
50	TPCB82102	CARTON	PT-LB30NTU
	TPCB82103	CARTON	PT-LB30NTE
	TPCB82104	CARTON	PT-LB30NTEA
	TPCB82105	CARTON	PT-LB30U
	TPCB82106	CARTON	PT-LB30E
	TPCB82107	CARTON	PT-LB30EA
51	TPDF1465	CUSHION	
52	TPDF1466	ACCESSORY CARTON	
53	TPDF1510	CUSHION 2	
54	TPEH124-1	SET COVER	
55	TPEP014	CARRING CASE	
	TQB817002-1	SAFETY SHEET	PT-LB30NTU, PT-LB30U
57	TQBH7017	SHEET (PASSWORD)	
56	TQBJ0170	INSTRUCTION BOOK	△ PT-LB30NTU, PT-LB30U
	TQBJ0171	INSTRUCTION BOOK	△ PT-LB30NTEA, PT-LB30EA
	TQBJ0172	INSTRUCTION BOOK	△ PT-LB30NTE, PT-LB30E
	TQBJ7008	HIGH GROUND SHEET	PT-LB30NTU, PT-LB30U
	TQD1712010	SHEET	
	TQDJ18004-1	GUARANTEE CARD (CANADA)	PT-LB30NTU, PT-LB30U
	TQDJ18015-9	GUARANTEE CARD (USA)	PT-LB30NTU, PT-LB30U
69	TQDJ19016-1	SIMPLE SHEET	PT-LB30NTU
	TQDJ19013	SIMPLE SHEET	PT-LB30NTE
	TQDJ19013-1	SIMPLE SHEET	PT-LB30NTEA
	TQDJ19014	SIMPLE SHEET	PT-LB30NTE
	TQDJ19015	SIMPLE SHEET	PT-LB30NTE
	TQF86202	LABEL	
	TSXL458	FLEX CABLE	
	TSXL470-1	FLEX CABLE (G)	
	TSXL476	FLEX CABLE (WL)	PT-LB30NTU/E/EA
	TUCB5039	ALUMINUM SHEET 1	
	TUCB5037	ALUMINUM SHEET 2	
58	TUCC6056	POWER BOX	
59	TUCC6057	POWER BASE	
	TUCC6060	SHIELD PLATE (LAN MODULE)	PT-LB30NTU/E/EA
	TUCC6074	TAPE	PT-LB30NTU/E/EA
60	TUCX5202	EARTH METAL	
61	TXFEE02VKA1	SOCKET HOLDER	
62	TXFKL01VKA1	LAMP COVER ASSY	
70	TXFQH01VJZ5B	CD-ROM	△ PT-LB30NTU/E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
	TXJ/B1VJW5A	LEAD WIRE	△
	TXJ/K1VKA1	LEAD WIRE (K-PCB)	△
	TXJ/L2VKA1A	LAMP CONNECTOR	
	TXJ/P1VKA1	LEAD WIRE	△
	TXJ/P3VKA1A	LEAD WIRE	△
	TXJ/Q3VKA1A	LEAD WIRE	△
63	TXZKG02VKA1	POLARIZING PLATE/IN (G)	
	XSB3+8FN	SCREW	
64	XTBT969FJK	SCREW	
	XTN3+6GFJ	SCREW	
	XTV3+12GFJ	SCREW	
	XTW3+8PFJ	SCREW	
	XYN2+F6FJ	SCREW	
	XYN26+F6FJ	SCREW	
	XYN3+F20FJK	SCREW	
	XYN3+F25FJ	SCREW	
	XYN3+F8FJ	SCREW	
	XYN3+F8FJK	SCREW	
	XYN3+J10FJ	SCREW	
	XYN3+J6FJK	SCREW	PT-LB30NTU/E/EA
	XYN3+J8FJ	SCREW	
	XYN4+E8FJ	SCREW	
71	XZBT6532	POLY BAG	PT-LB30NTU, PT-LB30U
65	TXFKF99PYXZ	UPPER COVER	PT-LB30NTU
	TXFKF99PZMZ	UPPER COVER	PT-LB30NTE
	TXFKF99PYZZ	UPPER COVER	PT-LB30NTEA
	TXFKF99PYYZ	UPPER COVER	PT-LB30U
	TXFKF99PZNZ	UPPER COVER	PT-LB30E
	TXFKF99PZAZ	UPPER COVER	PT-LB30EA
66	TXFKF98PYXZ	BOTTOM COVER	PT-LB30NTU
	TXFKF98PZMZ	BOTTOM COVER	PT-LB30NTE
	TXFKF98PYZZ	BOTTOM COVER	PT-LB30NTEA
	TXFKF98PYYZ	BOTTOM COVER	PT-LB30U
	TXFKF98PZNZ	BOTTOM COVER	PT-LB30E
	TXFKF98PZAZ	BOTTOM COVER	PT-LB30EA
67	TXFEC99VKA1	OPTICAL BLOCK	
68	TXFEC98VKA1	ANALYSIS BLOCK	
[INTEGRATED CIRCUIT]			
IC1001	C1AB00002204	I.C	
IC1002	C3EBCC000072	I.C	
IC1003	C0JBAR000370	I.C	
IC1005	C1AB00002041	I.C	
IC1006	C3ABPJ000071	I.C	
IC1008	C0ZBZ0001035	I.C	
IC1009	C0ZBZ0001034	I.C	
IC1010	C2DBYH000017	I.C	
IC1011	TVRN381-3	I.C	
IC1012	C0JBAF000379	I.C	
IC1013	C0JBAE000354	I.C	
IC1015	C0JBAF000379	I.C	
IC1016	C0EBE0000543	I.C	
IC1017	C3EBJC000055	I.C	
IC1018	C1GB00000102	I.C	
IC1019	C0CBCAC00096	I.C	
IC1020	C0JBAZ001876	I.C	
IC1021	C0FBBD000183	I.C	
IC1022	C0JBAZ001633	I.C	
IC1023	C0JBAZ001633	I.C	
IC1024	C3EBCC000072	I.C	
IC1025	C0JBAZ002222	I.C	
IC1026	C1BB00000840	I.C	
IC1028	C0JBAE000354	I.C	
IC1029	C0DBEKG00004	I.C	
IC1030	C0DBEKG00005	I.C	
IC1031	C0DBEKG00004	I.C	
IC1032	C0DBEKG00004	I.C	
IC1037	C0DBZFD00018	I.C	
IC1040	C0DBZFD00018	I.C	
IC1041	C0CBCDD00004	I.C	

Ref. No.	Part No.	Part Name & Description	Remarks
IC1042	C0DBZGF00002	I.C	
IC1043	C0CBCAD00015	I.C	
IC1050	C0DBEKG00004	I.C	
IC1051	C1AB00002033	I.C	
IC1052	C1AB00002033	I.C	
IC1053	C1AB00002033	I.C	
IC1054	C0DBEMC00020	I.C	
IC1060	C0ABZA000044	I.C	
IC1070	C1CB00001750	I.C	
IC1072	C0CBADC00075	I.C	
IC1083	C0JBZA002431	I.C	
IC1200	C1AB00001945	I.C	
IC1801	C0JBAB000635	I.C	PT-LB30NTU/E/EA
IC1802	C0JBAB000540	I.C	PT-LB30NTU/E/EA
IC1804	C1DB00001268	I.C	PT-LB30NTU/E/EA
IC1805	TVRN382-1	I.C	PT-LB30NTU/E/EA
IC1807	C0CBCAD00015	I.C	PT-LB30NTU/E/EA
IC1808	C2GBC0000205	I.C	PT-LB30NTU/E/EA
IC1809	C3ABQG000083	I.C	PT-LB30NTU/E/EA
IC1810	C3ABQG000083	I.C	PT-LB30NTU/E/EA
IC1811	C0CBAAF00035	I.C	PT-LB30NTU/E/EA
IC1812	C0FBK0000051	I.C	PT-LB30NTU/E/EA
IC1813	C1BB00000999	I.C	PT-LB30NTU/E/EA
IC4002	C0ZBZ0000269	I.C	
IC4003	C0JBAR000367	I.C	
IC9602	C0ZBZ0000943	I.C	
IC9603	C0ZBZ0000943	I.C	
[TRANSISTORS]			
Q1006	B1ABDF000018	TRANSISTOR	
Q1007	B1ADCE000013	TRANSISTOR	
Q1008	B1ABDF000018	TRANSISTOR	
Q1009	B1ABDF000018	TRANSISTOR	
Q1010	B1ABDF000018	TRANSISTOR	
Q1012	B1ABDF000018	TRANSISTOR	
Q1015	B1ABDF000018	TRANSISTOR	
Q1016	B1DHDD000027	TRANSISTOR	
Q1017	B1ABDF000018	TRANSISTOR	
Q1018	B1DFED000017	TRANSISTOR	
Q1019	B1ABDF000018	TRANSISTOR	
Q1021	B1ABDF000018	TRANSISTOR	
Q1022	B1DHDD000027	TRANSISTOR	
Q1027	B1ABDF000018	TRANSISTOR	
Q1032	B1ABDF000018	TRANSISTOR	
Q1034	B1ABDF000018	TRANSISTOR	
Q1035	B1ABDF000018	TRANSISTOR	
Q1038	B1CBHD000001	TRANSISTOR	
Q1039	B1CBHD000001	TRANSISTOR	
Q1040	B1ABDF000018	TRANSISTOR	
Q1041	B1ABDF000018	TRANSISTOR	
Q1042	B1ABDF000018	TRANSISTOR	
Q1044	B1ABDF000018	TRANSISTOR	
Q1045	B1ADCE000013	TRANSISTOR	
Q1046	B1ABDF000018	TRANSISTOR	
Q1047	B1ABDF000018	TRANSISTOR	
Q1048	B1ABDF000018	TRANSISTOR	
Q1050	B1ABDF000018	TRANSISTOR	
Q1052	B1ADCE000013	TRANSISTOR	
Q1053	B1ABDF000018	TRANSISTOR	
Q1055	B1ABDF000018	TRANSISTOR	
Q2001	B1ABCF000138	TRANSISTOR	
Q2002	B1ABCF000138	TRANSISTOR	
Q2003	B1ABCF000138	TRANSISTOR	
Q2004	B1ABCF000138	TRANSISTOR	
Q2005	B1ABCF000138	TRANSISTOR	
Q2007	MA721TX	DIODE	MA3X72100L
Q4001	B1ABDF000018	TRANSISTOR	
Q4003	B1ABDF000018	TRANSISTOR	
Q9603	B1DEGQ000037	TRANSISTOR	
Q9604	2SB710A	TRANSISTOR	2SB0710A
Q9605	2SB710A	TRANSISTOR	2SB0710A
Q9606	B1DEGM000022	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q9607	B1DEGM000022	TRANSISTOR	
Q9608	2SB710A	TRANSISTOR	2SB0710A
Q9609	2SB710A	TRANSISTOR	2SB0710A
Q9610	B1DEGM000022	TRANSISTOR	
Q9611	B1DEGM000022	TRANSISTOR	
Q9614	B1DEGQ000037	TRANSISTOR	
[DIODES]			
D1001	MA8056M	DIODE	MAZ80560M
D1002	MAZ81500ML	DIODE	
D1003	MAZ81500ML	DIODE	
D1004	MAZ81500ML	DIODE	
D1005	MAZ81500ML	DIODE	
D1006	MA8056M	DIODE	MAZ80560M
D1007	MA8056M	DIODE	MAZ80560M
D1008	MA8056M	DIODE	MAZ80560M
D1009	MA8056M	DIODE	MAZ80560M
D1010	MA8056M	DIODE	MAZ80560M
D1011	MA8056M	DIODE	MAZ80560M
D1012	MA8056M	DIODE	MAZ80560M
D1016	MA8056M	DIODE	MAZ80560M
D1017	MA8056M	DIODE	MAZ80560M
D1018	MA8056M	DIODE	MAZ80560M
D1019	MAZY12000L	DIODE	
D1020	B0HCMM000013	DIODE	
D1021	MA2S11100L	DIODE	
D1022	B0JCPD000026	DIODE	
D1023	B0JCPD000026	DIODE	
D1024	MA152WK	DIODE	MA3X152E
D1026	MA8056M	DIODE	MAZ80560M
D1027	MA2S11100L	DIODE	
D1028	MA2S11100L	DIODE	
D1031	MA2S11100L	DIODE	
D1032	MA2Z72000L	DIODE	
D2001	B3AAB0000168	DIODE	
D2002	B3AAB0000168	DIODE	
D2003	B3ABB0000181	DIODE	
D2004	B3AGB0000033	DIODE	
D2005	B3AGB0000033	DIODE	
D2006	MA157A	DIODE	MA3X157A
D2007	MA2S11100L	DIODE	
D9101	ERZV10D751	DIODE	△
D9601	B0HASR000006	DIODE	
D9604	MA158TX	DIODE	MA3X15800L
D9605	MA2Z72000L	DIODE	
D9606	MA158TX	DIODE	MA3X15800L
D9607	MA2Z72000L	DIODE	
D9608	MA158TX	DIODE	MA3X15800L
D9609	MA2Z72000L	DIODE	
D9611	MA158TX	DIODE	MA3X15800L
D9612	MA2Z72000L	DIODE	
D9616	B0ECPH000003	DIODE	
D9617	MA2Z72000L	DIODE	
D9618	MA2Z72000L	DIODE	
D9619	MA2Z72000L	DIODE	
D9620	MA2Z72000L	DIODE	
D9621	MA2Z72000L	DIODE	
D9622	B0ECPH000003	DIODE	
D9623	B0ECPH000003	DIODE	
D9624	MA2Z72000L	DIODE	
D9625	MA2Z72000L	DIODE	
D9626	MA2Z72000L	DIODE	
D9627	MA2Z72000L	DIODE	
D9628	MA2Z72000L	DIODE	
D9629	B0ECPH000003	DIODE	
[COILS]			
L1001	J0JCC0000168	FILTER	
L1002	J0JCC0000168	FILTER	
L1003	J0JCC0000168	FILTER	
L1004	J0JCC0000168	FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
L1005	J0JCC0000168	FILTER	
L1008	J0JCC0000168	FILTER	
L1009	J0JCC0000168	FILTER	
L1010	J0JJC0000022	EMI FILTER	
L1011	J0JCC0000168	FILTER	
L1012	J0JCC0000168	FILTER	
L1013	J0JJC0000022	EMI FILTER	
L1014	J0JCC0000168	FILTER	
L1015	J0JJC0000022	EMI FILTER	
L1016	J0JCC0000168	FILTER	
L1017	J0JJC0000022	EMI FILTER	
L1018	J0JJC0000022	EMI FILTER	
L1028	J0JJC0000022	EMI FILTER	
L1030	J0JJC0000022	EMI FILTER	
L1032	J0JJC0000022	EMI FILTER	
L1033	ELJFA470JFB	COIL	
L1034	J0JJC0000022	EMI FILTER	
L1035	J0JCC0000168	EMI FILTER	
L1036	ELJFA6R8JFB	COIL	
L1037	ELJFA470JFB	COIL	
L1038	J0JJC0000022	EMI FILTER	
L1039	J0JJC0000022	EMI FILTER	
L1040	J0JJC0000022	EMI FILTER	
L1042	J0JJC0000022	EMI FILTER	
L1043	J0JJC0000022	EMI FILTER	
L1044	J0JJC0000022	EMI FILTER	
L1045	J0JJC0000022	EMI FILTER	
L1046	J0JJC0000022	EMI FILTER	
L1048	J0JJC0000022	EMI FILTER	
L1049	J0JJC0000022	EMI FILTER	
L1066	J0JCC0000168	FILTER	
L1067	J0JCC0000168	FILTER	
L1068	J0JCC0000168	FILTER	
L1069	J0JCC0000168	FILTER	
L1070	J0JCC0000168	FILTER	
L1071	J0JCC0000168	FILTER	
L1072	J0JCC0000168	FILTER	
L1073	J0JCC0000168	FILTER	
L1074	J0JCC0000168	FILTER	
L1075	J0JCC0000168	FILTER	
L1076	J0JJC0000022	EMI FILTER	
L1801	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1802	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1803	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1804	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1805	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1807	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1808	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1809	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L1810	J0JJC0000022	EMI FILTER	PT-LB30NTU/E/EA
L4001	J0JCC0000168	FILTER	
L4002	J0JCC0000168	FILTER	
L4003	J0JCC0000168	FILTER	
L4004	J0JCC0000168	FILTER	
L4005	J0JCC0000168	FILTER	
L4006	J0JCC0000168	FILTER	
LF9101	G0B173H00001	FILTER	△
FL1001	J0HABB000014	FILTER	
FL1002	J0HABB000014	FILTER	
FL1003	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1004	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1005	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1006	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1007	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1008	EXB38V101J	RESISTOR ARRAY	PT-LB30NTU/E/EA
FL1801	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1802	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1803	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1804	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1805	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1806	J0JBD0000007	COIL	PT-LB30NTU/E/EA
FL1807	J0JBD0000007	COIL	PT-LB30NTU/E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
[RESISTORS]			
R1001	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1002	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1004	ERJ2GE0R00	M 0 OHM, 0.063W	
R1005	ERJ2GE0R00	M 0 OHM, 0.063W	
R1007	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1008	ERJ2GE0R00	M 0 OHM, 0.063W	
R1009	ERJ2GE0R00	M 0 OHM, 0.063W	
R1016	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R1017	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R1019	ERJ2GE0R00	M 0 OHM, 0.063W	
R1021	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1022	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1024	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1025	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1027	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1029	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1030	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1039	ERJ2GEJ100	M 10 OHM, 0.063W	
R1041	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1044	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1045	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R1047	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1048	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1051	ERJ3GEYJ473	M 47K OHM,J,1/16W	
R1052	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1053	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1054	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1055	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1056	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1057	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1058	ERJ3GEYJ104	M 100KOHM,J,1/16W	
R1059	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1060	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R1061	ERJ3GEYJ330	M 33 OHM,J,1/16W	
R1064	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R1065	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	
R1071	ERJ6GEYJ750	M 75 OHM,J,1/10W	
R1072	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1073	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1074	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1078	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1079	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1081	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1082	ERJ3GEYJ822	M 8.2KOHM,J,1/16W	
R1085	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	
R1088	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R1094	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1095	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1098	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1099	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1100	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1101	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1102	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1103	ERJ3GEYJ563	M 56KOHM,J,1/16W	
R1104	ERJ3GEYJ101	M 100 OHM,J,1/16W	D0GB101JA002
R1105	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R1106	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R1107	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1108	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1109	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R1110	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R1111	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R1112	ERJ1TYJ221	M 220 OHM, 1W	
R1113	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1114	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1115	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R1116	ERJ3GEYJ560	M 56 OHM,J,1/16W	
R1117	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1118	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1119	ERJ3GEYJ223	M 22K OHM,J,1/16W	
R1120	ERJ3GEYJ223	M 22K OHM,J,1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1121	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1122	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1123	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1124	ERJ3GEYJ183	M 18K OHM, J, 1/16W	
R1125	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1126	ERJ3GEYJ124	M 120KOHM, J, 1/16W	
R1127	ERJ3GEYJ154	M 150 OHM, J, 1/16W	
R1128	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1129	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1130	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1142	ERJ3EKF1002	M 10KOHM, 1/16W	
R1143	ERJ3EKF3902	M 39KOHM, 0.063W	
R1144	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1145	ERJ3EKF3900	M 390OHM, 0.063W	
R1147	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1148	ERJ3EKF3301	M 3.3KOHM, 0.063W	
R1151	ERJ3EKF3901	M 3.9KOHM, 0.063W	
R1154	ERJ3EKF1002	M 10KOHM, 1/16W	
R1155	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1156	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1164	ERJ3EKF1371	M 1.37KOHM, 0.063W	
R1167	ERJ3EKF1002	M 10KOHM, 1/16W	
R1168	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1169	ERJ2GEJ220	M 22 OHM, 0.063W	
R1170	ERJ3EKF3902	M 39KOHM, 0.063W	
R1171	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1172	ERJ3EKF3900	M 390OHM, 0.063W	
R1173	ERJ3EKF1741	M 1.74KOHM, 0.063W	
R1174	ERJ2GE0R00	M 0 OHM, 0.063W	
R1175	ERJ3EKF3301	M 3.3KOHM, 0.063W	
R1177	ERJ2GEJ220	M 22 OHM, 0.063W	
R1178	ERJ2GEJ560	M 56 OHM, 0.063W	
R1179	ERJ2GEJ220	M 22 OHM, 0.063W	
R1180	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1181	ERJ3EKF3901	M 3.9KOHM, 0.063W	
R1183	ERJ3EKF1002	M 10KOHM, 1/16W	
R1184	ERJ2GEJ220	M 22 OHM, 0.063W	
R1189	ERJ3GEYJ105	M 1M OHM, J, 1/16W	
R1192	ERJ3GEYJ330	M 33 OHM, J, 1/16W	
R1193	EXB28V560J	RESISTOR ARRAY	
R1194	D1HG5608A002	RESISTOR	
R1195	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1197	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1198	ERJ3GEYJ330	M 33 OHM, J, 1/16W	
R1199	ERJ6ENF2001	M 2KOHM, 1/10W	
R1200	ERJ3GEYJ330	M 33 OHM, J, 1/16W	
R1203	ERJ8ENF1001	M 1KOHM, 1/8W	
R1204	ERJ3EKF8201	M 802KOHM, 0.063W	
R1205	ERJ6ENF39R00	M 39 OHM, 1/10W	
R1206	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1209	ERJ6ENF1800	M 180 OHM, 1/10W	
R1210	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1211	ERJ3EKF1002	M 10KOHM, 1/16W	
R1212	D1HG5608A002	RESISTOR	
R1213	EXB28V560J	RESISTOR ARRAY	
R1214	ERJ2GEJ220	M 22 OHM, 0.063W	
R1221	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1222	ERJ6ENF1002	M 10KOHM, 1/10W	
R1223	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1224	ERJ3EKF3302	M 33KOHM, 1/16W	
R1225	ERJ3EKF1002	M 10KOHM, 1/16W	
R1226	ERJ3EKF3900	M 390OHM, 0.063W	
R1228	ERJ3EKF2701	M 2.7KOHM, 1/16W	
R1229	ERJ3EKF3901	M 3.9KOHM, 0.063W	
R1237	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1240	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1242	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1266	EXB28V560J	RESISTOR ARRAY	
R1272	ERJ3GEYJ681	M 680 OHM, J, 1/16W	
R1285	ERJ2GEJ203	M 20K OHM, 0.063W	
R1286	ERJ2GEJ750	M 75 OHM, 0.063W	
R1290	ERJ3GEYJ301	M 300 OHM, J, 1/16W	
R1291	ERJ2GEJ102	M 1K OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1295	ERJ6ENF8201	M 8.2KOHM, 1/10W	
R1299	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1300	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1301	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1304	ERJ2GEJ103	M 10K OHM, 0.063W	
R1305	ERJ3EKF1473	M 147KOHM, 0.063W	
R1306	ERJ3EKF1002	M 10KOHM, 1/16W	
R1308	ERJ6ENF1004	M1000KOHM, 1/10W	
R1309	ERJ2GEJ103	M 10K OHM, 0.063W	
R1310	ERJ6ENF3302	M 33KOHM, 1/10W	
R1311	ERJ6ENF6802	M 68KOHM, 1/10W	
R1312	ERJ6ENF3302	M 33KOHM, 1/10W	
R1313	ERJ6ENF6802	M 68KOHM, 1/10W	
R1314	ERJ6ENF3302	M 33KOHM, 1/10W	
R1315	ERJ6ENF6802	M 68KOHM, 1/10W	
R1322	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1323	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1324	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1328	D1HG1038A002	RESISTOR	
R1331	ERJ2GEJ105	M 1M OHM, 0.063W	
R1333	EXB28V103J	RESISTOR ARRAY	
R1334	ERJ2GEJ220	M 22 OHM, 0.063W	
R1335	ERJ2GEJ220	M 22 OHM, 0.063W	
R1339	ERJ2GEJ103	M 10K OHM, 0.063W	
R1340	ERJ2GEJ101	M 100 OHM, 0.063W	
R1346	ERJ2GEJ103	M 10K OHM, 0.063W	
R1355	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1356	ERJ2GEJ103	M 10K OHM, 0.063W	
R1357	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1358	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1360	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1362	ERJ6GEYJ560	M 56 OHM, J, 1/10W	
R1365	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R1367	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1368	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1369	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1370	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R1372	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1383	EXB28V220J	RESISTOR ARRAY	
R1384	EXB28V220J	RESISTOR ARRAY	
R1385	EXB28V102J	RESISTOR ARRAY	
R1386	EXB28V220J	RESISTOR ARRAY	
R1390	ERJ2GEJ101	M 100 OHM, 0.063W	
R1391	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1392	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1394	D1HG2208A002	RESISTOR	
R1401	EXB28V220J	RESISTOR ARRAY	
R1402	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1403	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1404	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1405	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1407	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1408	ERJ2GEJ331	M 330 OHM, 0.063W	
R1409	ERJ2GEJ220	M 22 OHM, 0.063W	
R1410	ERJ2GEJ331	M 330 OHM, 0.063W	
R1411	ERJ6GEYJ122	M 1.2KOHM, J, 1/10W	
R1412	ERJ6ENF1002	M 10KOHM, 1/10W	
R1413	ERJ6ENF1002	M 10KOHM, 1/10W	
R1419	ERJ2GEJ473	M 47K OHM, 0.063W	
R1420	ERJ2GEJ473	M 47K OHM, 0.063W	
R1421	ERJ2GEJ473	M 47K OHM, 0.063W	
R1426	ERJ2GEJ220	M 22 OHM, 0.063W	
R1427	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1430	ERJ1TYJ221	M 220 OHM, 1W	
R1431	ERJ1TYJ221	M 220 OHM, 1W	
R1434	ERJ3GEYJ272	M 2.7KOHMJ, J1/16W	
R1435	ERJ3GEYJ272	M 2.7KOHMJ, J1/16W	
R1436	ERJ3GEYJ272	M 2.7KOHMJ, J1/16W	
R1437	ERJ3GEYJ272	M 2.7KOHMJ, J1/16W	
R1438	ERJ3GEYJ272	M 2.7KOHMJ, J1/16W	
R1441	ERJ2GEJ104	M 100KOHM, 0.063W	
R1442	ERJ2GEJ104	M 100KOHM, 0.063W	
R1443	ERJ3GEYJ220	M 22 OHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1444	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1445	ERJ3GEY0R00	M 0 OHM, 1/16W	PT-LB30NTU/E/EA
R1446	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1447	ERJ2GEJ560	M 56 OHM, 0.063W	
R1448	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1449	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1450	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1451	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1453	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1454	ERJ3GEYJ274	M 270 OHM, J, 1/16W	
R1455	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1471	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1472	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R1501	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1502	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1503	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1505	ERJ2GEJ220	M 22 OHM, 0.063W	
R1510	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1511	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1512	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1513	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1514	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1515	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1516	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1517	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1518	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1519	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1520	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1521	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	
R1522	ERJ6GEYJ472	M 4.7KOHM, J, 1/10W	
R1523	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1524	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1525	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1526	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1527	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1528	ERJ2GEJ681	M 680 OHM, 0.063W	
R1530	ERJ3GEYJ153	M 15K OHM, J, 1/16W	
R1531	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1532	ERJ3GEYJ153	M 15K OHM, J, 1/16W	
R1533	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1534	ERJ3GEYJ153	M 15K OHM, J, 1/16W	
R1535	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1536	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1537	ERJ3GEYJ332	M 3.3KOHM, J, 1/16W	
R1539	ERJ3GEYJ122	M 1.2KOHM, J, 1/16W	
R1542	ERJ3GEYJ124	M 120KOHM, J, 1/16W	
R1543	ERJ3GEYJ154	M 150 OHM, J, 1/16W	
R1544	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1548	ERJ3GEYJ563	M 56KOHM, J, 1/16W	
R1549	ERJ3GEYJ154	M 150 OHM, J, 1/16W	
R1552	ERJ3GEYJ333	M 33K OHM, J, 1/16W	
R1554	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1555	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1556	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1569	D1HG2208A002	RESISTOR	
R1570	D1HG2208A002	RESISTOR	
R1571	D1HG2208A002	RESISTOR	
R1574	D1HG2208A002	RESISTOR	
R1575	D1HG2208A002	RESISTOR	
R1578	J0JCC0000244	FILTER	
R1579	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1580	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1581	ERJ2GEJ331	M 330 OHM, 0.063W	
R1582	ERJ2GEJ331	M 330 OHM, 0.063W	
R1583	ERJ2GEJ331	M 330 OHM, 0.063W	
R1584	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1585	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1586	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1587	ERJ2GEJ221	M 220 OHM, 0.063W	
R1588	ERJ2GEJ221	M 220 OHM, 0.063W	
R1589	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1590	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1591	ERJ2GEJ221	M 220 OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1592	ERJ2GEJ272	M 2.7KOHM, 0.063W	
R1593	ERJ2GEJ101	M 100 OHM, 0.063W	
R1595	D1HG1038A002	RESISTOR	
R1598	EXB28V103J	RESISTOR ARRAY	
R1599	EXB28V103J	RESISTOR ARRAY	
R1600	D1HG2208A002	RESISTOR	
R1603	EXB28V220J	RESISTOR ARRAY	
R1604	EXB28V220J	RESISTOR ARRAY	
R1605	D1HG2208A002	RESISTOR	
R1607	ERJ2GEJ220	M 22 OHM, 0.063W	
R1608	ERJ2GEJ103	M 10K OHM, 0.063W	
R1609	ERJ2GEJ331	M 330 OHM, 0.063W	
R1610	ERJ2GEJ220	M 22 OHM, 0.063W	
R1611	ERJ2GEJ220	M 22 OHM, 0.063W	
R1612	ERJ2GEJ220	M 22 OHM, 0.063W	
R1613	ERJ2GEJ102	M 1K OHM, 0.063W	
R1614	ERJ2GEJ220	M 22 OHM, 0.063W	
R1616	D1HG2208A002	RESISTOR	
R1619	D1HG2208A002	RESISTOR	
R1620	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1621	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1622	ERJ3GEYJ180	M 18 OHM, J, 1/16W	
R1623	ERJ2GEJ220	M 22 OHM, 0.063W	
R1626	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1628	ERJ2GEJ681	M 680 OHM, 0.063W	
R1632	ERJ2GEOR00	M 0 OHM, 0.063W	
R1633	D1HG5608A002	RESISTOR	
R1635	D1HG5608A002	RESISTOR	
R1637	D1HG5608A002	RESISTOR	
R1639	D1HG5608A002	RESISTOR	
R1641	ERJ2GEJ220	M 22 OHM, 0.063W	
R1642	ERJ2GEJ220	M 22 OHM, 0.063W	
R1645	ERJ2GEJ220	M 22 OHM, 0.063W	
R1646	ERJ2GEJ220	M 22 OHM, 0.063W	
R1647	ERJ2GEJ220	M 22 OHM, 0.063W	
R1650	EXB28V103J	RESISTOR ARRAY	
R1652	ERJ2GEJ220	M 22 OHM, 0.063W	
R1653	J0JCC0000238	FILTER	
R1654	J0JCC0000238	FILTER	
R1655	J0JCC0000238	FILTER	
R1656	ERJ2GEJ681	M 680 OHM, 0.063W	
R1657	ERJ2GEJ681	M 680 OHM, 0.063W	
R1661	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1662	ERJ3GEYJ220	M 22 OHM, J, 1/16W	
R1663	ERJ2GEJ221	M 220 OHM, 0.063W	
R1664	ERJ2GEJ220	M 22 OHM, 0.063W	
R1665	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1666	ERJ2GEJ103	M 10K OHM, 0.063W	
R1667	ERJ2GEJ101	M 100 OHM, 0.063W	
R1668	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1669	ERJ3GEYJ392	M 3.9KOHM, J, 1/16W	
R1672	ERJ2GEJ103	M 10K OHM, 0.063W	
R1673	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1674	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1675	ERJ2GEJ102	M 1K OHM, 0.063W	
R1676	ERJ6ENF2202	M 2.2KOHM, 1/10W	
R1677	ERJ2GEJ220	M 22 OHM, 0.063W	
R1678	D1HG1038A002	RESISTOR	PT-LB30U/E/EA
R1679	D1HG1038A002	RESISTOR	PT-LB30U/E/EA
R1680	D1HG1038A002	RESISTOR	PT-LB30U/E/EA
R1681	ERJ2GEJ103X	M 10K OHM, 0.063W	PT-LB30U/E/EA
R1682	ERJ2GEJ103X	M 10K OHM, 0.063W	PT-LB30U/E/EA
R1683	ERJ2GEJ103X	M 10K OHM, 0.063W	PT-LB30U/E/EA
R1684	ERJ2GEJ102	M 1K OHM, 0.063W	
R1685	ERJ2GEJ102	M 1K OHM, 0.063W	
R1689	ERJ2GEOR00	M 0 OHM, 0.063W	
R1691	ERJ2GEJ102	M 1K OHM, 0.063W	
R1692	ERJ1TYJ221	M 220 OHM, 1W	
R1801	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1802	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1803	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1804	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1806	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
R1807	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1808	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1809	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1810	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1816	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1819	ERJ3GEYJ330	M 33 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1820	ERJ3GEY0R00	M 0 OHM, 1/16W	PT-LB30NTU/E/EA
R1821	ERJ3GEY0R00	M 0 OHM, 1/16W	PT-LB30NTU/E/EA
R1822	ERJ3GEYJ680	M 68 OHM, J, 1/16W	PT-LB30NTU/E/EA (ERJ3GEYJ680V)
R1834	ERJ2GEJ680	M 68 OHM, 0.063W	PT-LB30NTU/E/EA (ERJ2RMJ680X)
R1839	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1843	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1846	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1847	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1848	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1850	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1851	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1855	ERJ2GEJ220	M 22 OHM, 0.063W	PT-LB30NTU/E/EA
R1859	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1860	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1863	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1864	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1865	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1866	ERJ2GEJ680	M 68 OHM, 0.063W	PT-LB30NTU/E/EA (ERJ2RMJ680X)
R1870	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1872	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1873	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1875	ERJ3GEY0R00	M 0 OHM, 1/16W	PT-LB30NTU/E/EA
R1876	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1877	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1878	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1879	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1880	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1881	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1882	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1885	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1890	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1891	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1892	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1893	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1894	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1895	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1897	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1898	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1901	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1902	ERJ6ENF4020	M 402 OHM, 1/10W	PT-LB30NTU/E/EA
R1903	ERJ6ENF1001	M 1KOHM, 1/10W	PT-LB30NTU/E/EA
R1904	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1905	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1906	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1907	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1908	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1909	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1910	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1912	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1913	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1914	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1915	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1916	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1917	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1918	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1919	EXB28V104J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1920	EXB28V472J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1922	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1923	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1925	EXB28V103J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1926	ERJ3GEYJ473	M 47K OHM, J, 1/16W	PT-LB30NTU/E/EA
R1927	ERJ3GEYJ473	M 47K OHM, J, 1/16W	PT-LB30NTU/E/EA
R1928	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1929	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1931	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
R1932	ERJ2GE0R00	M 0 OHM, 0.063W	PT-LB30NTU/E/EA
R1933	ERJ2GEJ105	M 1M OHM, 0.063W	PT-LB30NTU/E/EA
R1934	ERJ2GEJ820	M 82 OHM, 0.063W	PT-LB30NTU/E/EA
R1936	ERJ2GEJ102	M 1K OHM, 0.063W	PT-LB30NTU/E/EA
R1937	ERJ2GEJ103	M 10K OHM, 0.063W	PT-LB30NTU/E/EA
R1941	ERJ3GEYJ220	M 22 OHM, J, 1/16W	PT-LB30NTU/E/EA
R1942	EXB38V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1945	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1946	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1947	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1948	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1949	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1950	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1951	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1952	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1953	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1954	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1955	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1956	ERJ2GEJ220	M 22 OHM, 0.063W	PT-LB30NTU/E/EA
R1957	ERJ2GEJ220	M 22 OHM, 0.063W	PT-LB30NTU/E/EA
R1958	EXB28V100J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1959	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R1960	EXB28V220J	RESISTOR ARRAY	PT-LB30NTU/E/EA
R2001	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R2002	ERJ3GEYJ682	M 6.8KOHM, J, 1/16W	
R2003	ERJ3GEYJ152	M 1.5KOHM, J, 1/16W	
R2004	ERJ3GEYJ332	M 3.3KOHM, J, 1/16W	
R2005	ERJ3GEYJ333	M 33K OHM, J, 1/16W	
R2006	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2007	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2008	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2009	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2010	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2011	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2012	ERJ3GEYJ101	M 100 OHM, J, 1/16W	D0GB101JA002
R2013	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R2014	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R2015	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R2016	ERJ3GEYJ121	M 120 OHM, J, 1/16W	
R2017	ERJ3GEYJ151	M 150 OHM, J, 1/16W	
R2018	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R2019	ERJ3GEYJ470	M 47 OHM, J, 1/16W	
R2020	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R2022	ERJ3GEYJ121	M 120 OHM, J, 1/16W	
R2023	ERJ3GEYJ151	M 150 OHM, J, 1/16W	
R2024	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R2025	ERJ12YJ271U	M 270 OHM, J, 1/2W	
R3001	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R3002	ERJ3EKF6801	M 6.8KOHM, 1/16W	
R3004	ERJ3EKF2201	M 2.2K OHM, J, 1/16W	
R3005	ERJ3EKF1001	M 1K OHM, 0.063W	
R3006	ERJ3EKF1002	M 10KOHM, 1/16W	
R3007	ERJ3EKF1002	M 10KOHM, 1/16W	
R3008	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R3009	ERJ3EKF2201	M 2.2K OHM, J, 1/16W	
R3010	ERJ3EKF1001	M 1K OHM, 0.063W	
R3011	ERJ3EKF2201	M 2.2K OHM, J, 1/16W	
R3012	ERJ3EKF1003	M 100KOHM, 0.063W	
R4005	ERJ3GEYJ223	M 22K OHM, J, 1/16W	
R4006	ERJ3GEYJ223	M 22K OHM, J, 1/16W	
R4007	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4008	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4009	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4010	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4011	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4012	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4015	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4016	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R4018	ERJ3GEYJ183	M 18K OHM, J, 1/16W	
R4019	ERJ3GEYJ183	M 18K OHM, J, 1/16W	
R4020	ERJ3GEYJ183	M 18K OHM, J, 1/16W	
R4026	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R4027	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R4029	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4030	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R4031	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4032	ERJ3GEYJ333	M 33K OHM,J,1/16W	
R4033	ERJ3GEYJ221	M 220 OHM,J,1/16W	
R4035	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R4036	ERJ3GEYJ471	M 470 OHM,J,1/16W	
R4038	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R4039	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R4040	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R4041	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4042	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R4043	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R4044	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4045	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R4046	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R4047	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4048	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R4049	ERJ3GEYJ124	M 120KOHM,J,1/16W	
R4050	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R4051	ERJ3GEYJ154	M 150 OHM,J,1/16W	
R4052	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R4053	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R4054	ERJ3GEYJ103	M 10K OHM,J,1/16W	
R4055	ERJ3GEYJ561	M 560 OHM,J,1/16W	
R9101	ERDS1TJ474	C 4.7KOHM, J,1/2W	△
R9102	D0A1825JA015	RESISTOR	△
R9601	ERX2SJR47E	M 0.47OHM,J, 2W	
R9630	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9631	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9632	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9633	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9634	ERJ8GEYJ120	M 12 OHM, J,1/4W	
R9636	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9637	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9638	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9639	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9640	ERJ8GEYJ120	M 12 OHM, J,1/4W	
R9653	D0XGR22KA001	RESISTOR	
[CAPACITORS]			
C1001	EEH0B0J221UP	E 330UF, 6.3V	
C1002	ECJ0EB1C103K	C 0.01UF, 16V	
C1003	EEH0B0J221UP	E 330UF, 6.3V	
C1004	ECJ0EB1C103K	C 0.01UF, 16V	
C1005	EEH0B0J221UP	E 330UF, 6.3V	
C1006	ECJ0EB1C103K	C 0.01UF, 16V	
C1007	ECJ0EF1C104Z	C 0.1UF, 16V	
C1008	ECJ1VB1H472K	C 4700PF, K, 50V	
C1009	ECJ1VF1C105Z	C 0.01UF, Z, 16V	
C1010	EEH0B0J330R	E 33UF, 6.3V	
C1011	ECJ0EF1C104Z	C 0.1UF, 16V	
C1012	EEH0B0J330R	E 33UF, 6.3V	
C1013	F2G1A101A029	CAPACITOR	
C1014	ECJ0EF1C104Z	C 0.1UF, 16V	
C1015	ECJ0EF1C104Z	C 0.1UF, 16V	
C1016	ECJ0EB1C103K	C 0.01UF, 16V	
C1017	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1018	ECJ0EB1C103K	C 0.01UF, 16V	
C1019	ECJ0EB1H102K	C 1000PF, 50V	
C1021	ECJ0EF1C104Z	C 0.1UF, 16V	
C1022	ECJ0EB1C103K	C 0.01UF, 16V	
C1023	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1024	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1027	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1029	ECJ0EF1C104Z	C 0.1UF, 16V	
C1032	ECJ0EF1C104Z	C 0.1UF, 16V	
C1033	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1035	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1036	EEH0B0J330R	E 33UF, 6.3V	
C1037	ECJ0EB1C103K	C 0.01UF, 16V	
C1038	EEH0B0J330R	E 33UF, 6.3V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1039	ECJ0EB1C103K	C 0.01UF, 16V	
C1040	EEH0B0J330R	E 33UF, 6.3V	
C1041	ECJ0EB1C103K	C 0.01UF, 16V	
C1047	ECJ2YF1C225Z	C 2.2UF, Z, 16V	
C1048	ECJ1VB1H102K	C 1000PF, K, 50V	
C1049	ECJ2YF1C225Z	C 2.2UF, Z, 16V	
C1050	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1051	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1052	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1053	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1054	ECJ0EF1C104Z	C 0.1UF, 16V	
C1058	F2G0J4700010	CAPACITOR	
C1072	F2G1C4700014	CAPACITOR	
C1075	F2G1C1000013	CAPACITOR	
C1076	ECJ2FF1A106Z	C 10UF, 10V	
C1077	ECJ0EF1C104Z	C 0.1UF, 16V	
C1078	ECJ0EF1C104Z	C 0.1UF, 16V	
C1079	ECJ0EB1C103K	C 0.01UF, 16V	
C1080	ECJ2FF1A106Z	C 10UF, 10V	
C1081	F2G1C1000013	CAPACITOR	
C1082	ECJ0EF1C104Z	C 0.1UF, 16V	
C1083	ECJ0EF1C104Z	C 0.1UF, 16V	
C1084	ECJ2YF1C225Z	C 2.2UF, Z, 16V	
C1085	ECJ0EF1C104Z	C 0.1UF, 16V	
C1086	ECJ0EB1C103K	C 0.01UF, 16V	
C1087	ECJ0EF1C104Z	C 0.1UF, 16V	
C1088	ECJ0EF1C104Z	C 0.1UF, 16V	
C1089	ECJ0EF1C104Z	C 0.1UF, 16V	
C1090	ECJ0EF1C104Z	C 0.1UF, 16V	
C1091	ECJ0EF1C104Z	C 0.1UF, 16V	
C1092	ECJ0EF1C104Z	C 0.1UF, 16V	
C1093	ECJ0EB1H102K	C 1000PF, 50V	
C1094	EEH0B0G101R	E 100UF, 4V	
C1095	ECJ0EF1C104Z	C 0.1UF, 16V	
C1096	ECJ0EF1C104Z	C 0.1UF, 16V	
C1097	ECJ0EF1C104Z	C 0.1UF, 16V	
C1098	ECJ0EF1C104Z	C 0.1UF, 16V	
C1100	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C1101	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C1102	ECJ0EF1C104Z	C 0.1UF, 16V	
C1104	F2G1C4700014	CAPACITOR	
C1105	ECJ0EB1H102K	C 1000PF, 50V	
C1107	ECJ0EF1C104Z	C 0.1UF, 16V	
C1108	ECJ0EF1C104Z	C 0.1UF, 16V	
C1109	ECJ1VB1C823K	C 0.82UF, 16V	
C1110	ECJ1VB1H822K	C 8200PF, K, 50V	
C1113	ECJ0EB1C103K	C 0.01UF, 16V	
C1114	ECJ0EF1C104Z	C 0.1UF, 16V	
C1115	ECJ0EF1C104Z	C 0.1UF, 16V	
C1121	ECJ0EF1C104Z	C 0.1UF, 16V	
C1122	ECJ1VC1H150J	C 15PF, J, 50V	
C1123	ECJ0EF1C104Z	C 0.1UF, 16V	
C1125	ECJ0EF1C104Z	C 0.1UF, 16V	
C1126	ECJ1VC1H150J	C 15PF, J, 50V	
C1127	ECJ0EF1C104Z	C 0.1UF, 16V	
C1128	EEFCD0D101R	CAPACITOR	
C1129	ECJ1VB1H102K	C 1000PF, K, 50V	
C1130	ECJ1VB1H102K	C 1000PF, K, 50V	
C1132	ECJ2YF1C225Z	C 2.2UF, Z, 16V	
C1133	ECJ0EF1C104Z	C 0.1UF, 16V	
C1135	ECJ0EF1C104Z	C 0.1UF, 16V	
C1137	EEH0B0G101R	E 100UF, 4V	
C1138	ECJ0EF1C104Z	C 0.1UF, 16V	
C1139	ECJ0EF1C104Z	C 0.1UF, 16V	
C1140	ECJ0EF1C104Z	C 0.1UF, 16V	
C1141	ECJ2YF1C225Z	C 2.2UF, Z, 16V	
C1143	F2G1C4700014	CAPACITOR	
C1145	ECJ0EF1C104Z	C 0.1UF, 16V	
C1146	F2G1C4700014	CAPACITOR	
C1149	ECJ0EF1C104Z	C 0.1UF, 16V	
C1150	ECJ0EF1C104Z	C 0.1UF, 16V	
C1152	ECJ0EF1C104Z	C 0.1UF, 16V	
C1154	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1168	ECJ0EF1C104Z	C 0.1UF, 16V	
C1172	ECJ0EF1C104Z	C 0.1UF, 16V	
C1178	ECJ0EF1C104Z	C 0.1UF, 16V	
C1185	ECJ0EF1C104Z	C 0.1UF, 16V	
C1187	F2G0J4700010	CAPACITOR	
C1189	ECJ0EF1C104Z	C 0.1UF, 16V	
C1199	F2G0J4700010	CAPACITOR	
C1200	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1201	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1202	ECJ0EF1C104Z	C 0.1UF, 16V	
C1206	ECJ0EF1C104Z	C 0.1UF, 16V	
C1207	ECJ0EF1C104Z	C 0.1UF, 16V	
C1208	ECJ0EF1C104Z	C 0.1UF, 16V	
C1209	ECJ0EF1C104Z	C 0.1UF, 16V	
C1210	ECJ1VF1H333Z	C 0.033UF, 50V	
C1212	ECJ0EF1C104Z	C 0.1UF, 16V	
C1213	ECJ0EF1C104Z	C 0.1UF, 16V	
C1215	ECJ0EF1C104Z	C 0.1UF, 16V	
C1216	ECJ0EF1C104Z	C 0.1UF, 16V	
C1217	ECJ1VC1H471J	C 470PF, J, 50V	
C1218	ECJ0EF1C104Z	C 0.1UF, 16V	
C1219	ECJ1VC1H100C	C 10PF, 50V	
C1220	ECJ0EF1C104Z	C 0.1UF, 16V	
C1221	ECJ1VC1H100C	C 10PF, 50V	
C1222	ECJ0EF1C104Z	C 0.1UF, 16V	
C1223	ECJ0EF1C104Z	C 0.1UF, 16V	
C1224	F2G0J4700010	CAPACITOR	
C1225	ECJ0EF1C104Z	C 0.1UF, 16V	
C1229	ECJ0EF1C104Z	C 0.1UF, 16V	
C1230	EEH80G101R	E 100UF, 4V	
C1242	F2G0J1010013	CAPACITOR	
C1243	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1244	F2G1E3300010	CAPACITOR	
C1245	F2G1E3300010	CAPACITOR	
C1246	ECJ0EB1C103K	C 0.01UF, 16V	
C1247	ECJ0EF1C104Z	C 0.1UF, 16V	
C1248	ECJ0EB1C103K	C 0.01UF, 16V	
C1249	ECJ0EF1C104Z	C 0.1UF, 16V	
C1250	ECJ0EB1C103K	C 0.01UF, 16V	
C1251	ECJ0EF1C104Z	C 0.1UF, 16V	
C1252	F1J1E105A197	CAPACITOR	
C1253	ECJ0EF1C104Z	C 0.1UF, 16V	
C1254	ECJ0EF1C104Z	C 0.1UF, 16V	
C1255	ECJ0EF1C104Z	C 0.1UF, 16V	
C1256	ECJ0EF1C104Z	C 0.1UF, 16V	
C1257	ECJ0EF1C104Z	C 0.1UF, 16V	
C1258	ECJ0EF1C104Z	C 0.1UF, 16V	
C1259	ECJ0EF1C104Z	C 0.1UF, 16V	
C1260	ECJ0EF1C104Z	C 0.1UF, 16V	
C1261	ECJ0EF1C104Z	C 0.1UF, 16V	
C1262	ECJ0EF1C104Z	C 0.1UF, 16V	
C1263	ECJ0EF1C104Z	C 0.1UF, 16V	
C1264	ECJ0EF1C104Z	C 0.1UF, 16V	
C1265	ECJ0EF1C104Z	C 0.1UF, 16V	
C1266	ECJ0EF1C104Z	C 0.1UF, 16V	
C1267	ECJ0EF1C104Z	C 0.1UF, 16V	
C1268	ECJ0EF1C104Z	C 0.1UF, 16V	
C1269	ECJ0EF1C104Z	C 0.1UF, 16V	
C1270	ECJ0EF1C104Z	C 0.1UF, 16V	
C1271	ECJ0EF1C104Z	C 0.1UF, 16V	
C1272	ECJ0EF1C104Z	C 0.1UF, 16V	
C1273	ECJ0EF1C104Z	C 0.1UF, 16V	
C1274	ECJ0EF1C104Z	C 0.1UF, 16V	
C1275	ECJ0EF1C104Z	C 0.1UF, 16V	
C1276	ECJ0EF1C104Z	C 0.1UF, 16V	
C1277	ECJ0EF1C104Z	C 0.1UF, 16V	
C1278	ECJ0EF1C104Z	C 0.1UF, 16V	
C1279	ECJ0EF1C104Z	C 0.1UF, 16V	
C1280	ECJ0EF1C104Z	C 0.1UF, 16V	
C1281	ECJ0EF1C104Z	C 0.1UF, 16V	
C1282	ECJ0EF1C104Z	C 0.1UF, 16V	
C1283	ECJ0EF1C104Z	C 0.1UF, 16V	
C1284	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1285	ECJ0EF1C104Z	C 0.1UF, 16V	
C1286	F2G1E3300010	CAPACITOR	
C1306	ECJ0EF1C104Z	C 0.1UF, 16V	
C1329	F1J1E105A197	CAPACITOR	
C1330	F1J1E105A197	CAPACITOR	
C1331	F1J1E105A197	CAPACITOR	
C1332	F2G1E3300022	CAPACITOR	
C1333	F2G1E3300010	CAPACITOR	
C1334	F2G1E3300010	CAPACITOR	
C1335	F2G1A3300007	CAPACITOR	
C1336	F2G1A3300022	CAPACITOR	
C1337	F2G1A3300007	CAPACITOR	
C1341	ECJ1VF1C105Z	C 0.01UF, Z, 16V	
C1342	ECJ1VF1C105Z	C 0.01UF, Z, 16V	
C1343	ECJ1VF1C105Z	C 0.01UF, Z, 16V	
C1353	F4D272750005	CAPACITOR	
C1354	F4D272750005	CAPACITOR	
C1355	F4D272750005	CAPACITOR	
C1356	F4D272750005	CAPACITOR	
C1357	F4D272750005	CAPACITOR	
C1360	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C1364	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1500	ECJ0EF1C104Z	C 0.1UF, 16V	
C1501	ECJ0EF1C104Z	C 0.1UF, 16V	
C1502	ECJ0EF1C104Z	C 0.1UF, 16V	
C1503	ECJ0EF1C104Z	C 0.1UF, 16V	
C1504	ECJ0EF1C104Z	C 0.1UF, 16V	
C1505	ECJ0EF1C104Z	C 0.1UF, 16V	
C1506	ECJ0EF1C104Z	C 0.1UF, 16V	
C1507	ECJ0EF1C104Z	C 0.1UF, 16V	
C1508	ECJ0EF1C104Z	C 0.1UF, 16V	
C1509	ECJ0EF1C104Z	C 0.1UF, 16V	
C1510	ECJ0EF1C104Z	C 0.1UF, 16V	
C1511	ECJ0EF1C104Z	C 0.1UF, 16V	
C1512	ECJ0EF1C104Z	C 0.1UF, 16V	
C1513	ECJ0EF1C104Z	C 0.1UF, 16V	
C1514	ECJ0EF1C104Z	C 0.1UF, 16V	
C1515	ECJ0EF1C104Z	C 0.1UF, 16V	
C1516	ECJ0EF1C104Z	C 0.1UF, 16V	
C1517	ECJ0EB1C103K	C 0.01UF, 16V	
C1518	ECJ0EF1C104Z	C 0.1UF, 16V	
C1519	ECJ0EF1C104Z	C 0.1UF, 16V	
C1520	ECJ0EF1C104Z	C 0.1UF, 16V	
C1521	ECJ0EF1C104Z	C 0.1UF, 16V	
C1522	ECJ0EF1C104Z	C 0.1UF, 16V	
C1523	ECJ0EF1C104Z	C 0.1UF, 16V	
C1524	ECJ0EF1C104Z	C 0.1UF, 16V	
C1525	ECJ0EF1C104Z	C 0.1UF, 16V	
C1526	ECJ0EF1C104Z	C 0.1UF, 16V	
C1527	ECJ0EF1C104Z	C 0.1UF, 16V	
C1528	ECJ0EF1C104Z	C 0.1UF, 16V	
C1529	ECJ0EF1C104Z	C 0.1UF, 16V	
C1530	ECJ0EF1C104Z	C 0.1UF, 16V	
C1531	ECJ0EF1C104Z	C 0.1UF, 16V	
C1532	ECJ0EF1C104Z	C 0.1UF, 16V	
C1533	ECJ0EF1C104Z	C 0.1UF, 16V	
C1534	ECJ0EF1C104Z	C 0.1UF, 16V	
C1535	ECJ0EF1C104Z	C 0.1UF, 16V	
C1536	ECJ0EF1C104Z	C 0.1UF, 16V	
C1538	ECJ0EF1C104Z	C 0.1UF, 16V	
C1539	F1J1E105A197	CAPACITOR	
C1541	F1J0J106A013	CAPACITOR	
C1542	F2G0J4700010	CAPACITOR	
C1543	F2G1A221A030	CAPACITOR	
C1544	ECJ0EF1C104Z	C 0.1UF, 16V	
C1601	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1602	ECJ0EF1C104Z	C 0.1UF, 16V	
C1603	ECJ0EF1C104Z	C 0.1UF, 16V	
C1604	ECJ0EF1C104Z	C 0.1UF, 16V	
C1605	ECJ0EF1C104Z	C 0.1UF, 16V	
C1606	ECJ0EF1C104Z	C 0.1UF, 16V	
C1607	ECJ0EF1C104Z	C 0.1UF, 16V	
C1608	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1609	ECJ0EF1C104Z	C 0.1UF, 16V	
C1610	ECJ0EF1C104Z	C 0.1UF, 16V	
C1611	ECJ0EF1C104Z	C 0.1UF, 16V	
C1612	ECJ0EF1C104Z	C 0.1UF, 16V	
C1613	ECJ0EF1C104Z	C 0.1UF, 16V	
C1614	ECJ0EF1C104Z	C 0.1UF, 16V	
C1615	ECJ0EF1C104Z	C 0.1UF, 16V	
C1616	ECJ0EF1C104Z	C 0.1UF, 16V	
C1617	ECJ0EF1C104Z	C 0.1UF, 16V	
C1618	ECJ0EF1C104Z	C 0.1UF, 16V	
C1619	ECJ0EF1C104Z	C 0.1UF, 16V	
C1620	ECJ0EF1C104Z	C 0.1UF, 16V	
C1621	ECJ0EF1C104Z	C 0.1UF, 16V	
C1622	ECJ0EF1C104Z	C 0.1UF, 16V	
C1623	ECJ0EF1C104Z	C 0.1UF, 16V	
C1624	ECJ0EF1C104Z	C 0.1UF, 16V	
C1629	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1630	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1631	ECJ0EF1C104Z	C 0.1UF, 16V	
C1632	ECJ0EF1C104Z	C 0.1UF, 16V	
C1633	ECJ0EF1C104Z	C 0.1UF, 16V	
C1634	ECJ0EF1C104Z	C 0.1UF, 16V	
C1635	ECJ0EF1C104Z	C 0.1UF, 16V	
C1637	ECJ0EF1C104Z	C 0.1UF, 16V	
C1638	ECJ1VFC105Z	C 0.01UF, Z, 16V	
C1801	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1802	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1803	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1804	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1805	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA
C1806	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1808	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1809	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1810	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1811	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1812	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1813	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1814	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1815	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1816	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1817	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1818	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1819	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1820	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1821	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1822	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1823	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1824	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1825	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1826	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1827	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1828	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1829	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1830	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1831	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1832	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1833	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1834	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1835	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA
C1836	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1837	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1838	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1839	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1840	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1841	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1842	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA
C1843	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1844	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1845	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1846	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1848	ECJ1VB1H103K	C 0.01UF, K, 50V	PT-LB30NTU/E/EA
C1849	ECJ1VC1H101J	C 100PF, J, 50V	PT-LB30NTU/E/EA
C1850	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA

Ref. No.	Part No.	Part Name & Description	Remarks
C1851	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1852	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1853	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1854	F2G0J1010013	CAPACITOR	PT-LB30NTU/E/EA
C1855	ECJ0EF0J105Z	C 100UF, 6.3V	PT-LB30NTU/E/EA
C1856	ECJ0EF0J105Z	C 100UF, 6.3V	PT-LB30NTU/E/EA
C1857	ECJ0EF0J105Z	C 100UF, 6.3V	PT-LB30NTU/E/EA
C1858	ECJ0EF0J105Z	C 100UF, 6.3V	PT-LB30NTU/E/EA
C1859	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1860	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1861	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1862	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1863	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA
C1865	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1866	F2G0J4700010	CAPACITOR	PT-LB30NTU/E/EA
C1867	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1868	ECJ3YF1C475Z	C 4.7UF, Z, 16V	PT-LB30NTU/E/EA
C1869	F1J0J106A013	CAPACITOR	PT-LB30NTU/E/EA
C1870	F1J0J106A013	CAPACITOR	PT-LB30NTU/E/EA
C1871	ECJ0EF1C104Z	C 0.1UF, 16V	PT-LB30NTU/E/EA
C1872	F1J0J106A013	CAPACITOR	PT-LB30NTU/E/EA
C1873	F1J0J106A013	CAPACITOR	PT-LB30NTU/E/EA
C1876	ECA1EHG101	E 100UF, 25V	PT-LB30NTU/E/EA
C2001	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C2004	ECJ0EF1C104Z	C 0.1UF, 16V	
C2005	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C2007	ECJ0EF1C104Z	C 0.1UF, 16V	
C3001	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C3003	ECJ1VF1C104Z	C 0.1UF, Z, 16V	
C4004	F2G1C1000013	CAPACITOR	
C4009	ECJ1VF1A105Z	C 1UF, Z, 50V	
C4011	ECJ1VF1A105Z	C 1UF, Z, 50V	
C4012	ECJ1VF1A105Z	C 1UF, Z, 50V	
C4013	ECJ1VF1A105Z	C 1UF, Z, 50V	
C4014	ECJ1VF1A105Z	C 1UF, Z, 50V	
C4016	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C4017	ECJ2FF1A106Z	C 10UF, 10V	
C4018	ECJ2FF1A106Z	C 10UF, 10V	
C4019	ECJ1VB1H472K	C 4700PF, K, 50V	
C4021	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C4022	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C4024	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C4025	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C4026	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C4027	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C9101	ECQU2A334MLA	P 0.33UF, M, 250V	△
C9102	F1BAH102A024	CAPACITOR	△
C9103	F1BAH102A024	CAPACITOR	△
C9104	ECQU2A224MLA	P 0.22UF, M, 250V	△
C9603	F0C2Z4740002	CAPACITOR	
C9610	F0C2E1050002	CAPACITOR	
C9617	F0C3C4720003	CAPACITOR	
C9618	F0C2J1540004	CAPACITOR	
C9619	F0C2J1540004	CAPACITOR	
C9635	ECJ2VF1C105Z	C 1UF, Z, 16V	
C9639	ECJ1VC1H102J	C 1000PF, J, 50V	
[OTHERS]			
A1	K1MN30BA0130	30P CONNECTOR	
A2	K1MN30BA0131	30P CONNECTOR	
A3	K1MN30BA0130	30P CONNECTOR	
A4	K1KA07BA0014	7P CONNECTOR	
A6	K1KA12BA0059	12P CONNECTOR	
A8	K1MN12B00070	12P CONNECTOR	
A9	K1KB05AA0065	5P CONNECTOR	
A10	K1KA02BA0047	2P CONNECTOR	
A11	K1KA02BA0047	2P CONNECTOR	
A12	K1KA02BA0047	2P CONNECTOR	
A13	K1MN50B00010	50P CONNECTOR	PT-LB30NTU/E/EA
A15	K1KA03BA0047	3P CONNECTOR	
A16	K1KA03BA0014	3P CONNECTOR	
A17	K1KA03BA0047	3P CONNECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
A18	K1KA03BA0014	3P CONNECTOR	
A19	K1KA04BA0047	4P CONNECTOR	
A20	K1MN14A00081	14P CONNECTOR	
G1	K1MN14A00081	14P CONNECTOR	
S1	K1MN12B00137	12P CONNECTOR	
S2	K1KA05B00150	5P CONNECTOR	
WL1	K1KA80A00125	80P CONNECTOR	PT-LB30NTU/E/EA
WL2	K1MN50B00016	50P CONNECTOR	PT-LB30NTU/E/EA
CF1001	D4CC1103A037	THERMISTOR	
CF2001	D4CC1103A037	THERMISTOR	
F9101-1	EYF52BCY	FUSE HOLDER	
F9101-2	EYF52BCY	FUSE HOLDER	
F9101	K5D632BNA005	FUSE	△
JK1001	K1CB205B0003	S-VIDEO/VIDEO IN TERMINAL	
JK1002	K1CB208BA002	RS232C I/F TERMINAL	
JK1003	K2HA202B0025	AUDIO IN TERMINAL	
JK1004	K1FB115B0103	RGB1 IN TERMINAL	
JK1005	K1FB115B0102	RGB2 IN/OUT TERMINAL	
JK4001	K2HC103B0134	RGB1 AUDIO IN TERMINAL	
JK4002	K2HC103B0134	RGB2 AUDIO IN TERMINAL	
JK4003	K2HC103B0182	AUDIO OUT TERMINAL	
JK9101	K2AZ3B000002	AC INLET	△
PC2001	B3JB00000023	PHOTO CUPLER	
RM2001	B3RAD0000102	REMOTE CONTROL RECEIVER	
S9602	A9BZ00000010	SPARK GAP	
SW2001	EVQPLHA15	SWITCH	
SW2002	EVQPLHA15	SWITCH	
SW2003	EVQPLHA15	SWITCH	
SW3001	EVQPLHA15	SWITCH	
SW3002	EVQWHA50K	SWITCH	
SW9601	T115AR3U3	SWITCH	△
T9604	G4F3A0000004	TRANS	△
X1002	H0J270500045	CRYSTAL	
X1003	H0J983400016	CRYSTAL	
X1006	H1A6505B0006	CRYSTAL	
X1801	H1A6605B0005	CRYSTAL	PT-LB30NTU/E/EA
X1802	H0J270500091	CRYSTAL	PT-LB30NTU/E/EA
RTL	TXANP02VKA1	CIRCUIT BOARD K	
RTL	TNPA3595	CIRCUIT BOARD WL	PT-LB30NTU/E/EA
RTL	TXANP01VKA1	CIRCUIT BOARD A	PT-LB30NTU/E/EA
RTL	TXANP01PYYZ	CIRCUIT BOARD A	PT-LB30U/E/EA
RTL	TNPA3597	CIRCUIT BOARD S2	
RTL	TNPA3646	CIRCUIT BOARD G	
RTL	TNPA3596	CIRCUIT BOARD S1	
	ETXMM574MBG	CIRCUIT BOARD P	
	TXANP04VKA1	BALLAST UNIT	